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★

THE COVER

A worker pulling orders in Philadelphia's new Frankford Grocery Co. warehouse is framed at the far end of the order assembly cross aisle with his tractor-trailer unit. Inclusion of the cross aisle in the steel rack network speeds handling. Frankford has parlayed a three-factor handling scheme into one of the most impressive man-ton pay-offs in the industry (See Page 19).

DISTRIBUTION AGE

ESTABLISHED 1901

Chestnut and 56th Sts., Philadelphia 39, Pa.

VOL. 51, No. 10 OCTOBER, 1952

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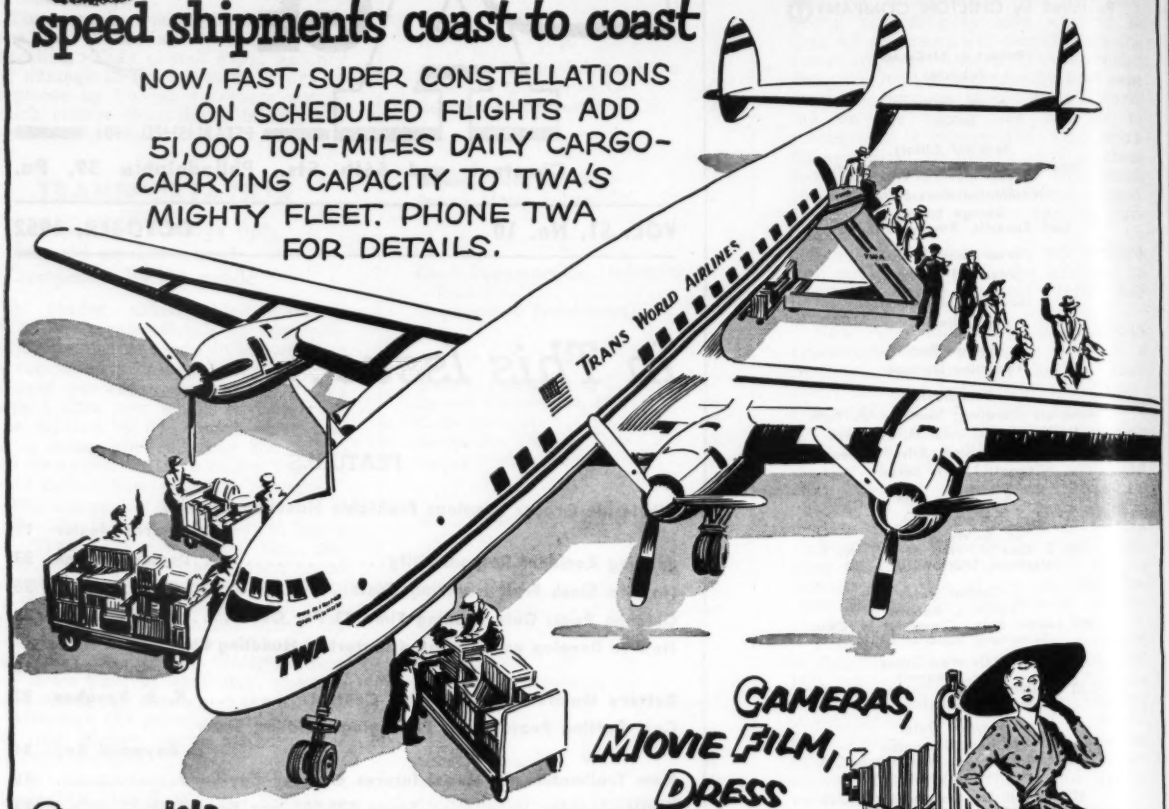

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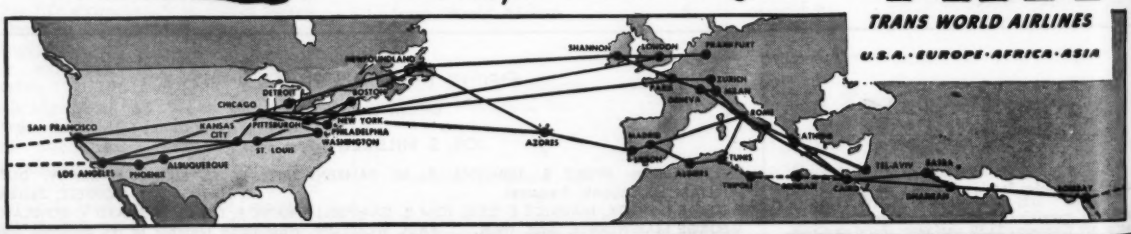


Circle No. 113 on Card, Page 51, for more information

On the Line — DA EDITORIAL COMMENT

Stuff for the Wastebasket

Has the stuff in your mail ever loused up your day?

The first letter today asks that we publish a September meeting notice—our September issue has been out for weeks! Number Two, hand-written to an editor departed years ago, says, "Phone me immediately, I have good news for you." It's signed, "Bill."

Next is a complaint about an article. It is addressed to another publication, but it came in an envelope addressed to us. Wonder if the other magazine got a gripe intended for us?

Then a news item, stating briefly, "Mr. Doe replaces Mr. Crash as president of our company." We toss it into the news chute thinking, grimly, "To that we could add some sidelights." Here's one:

Years ago, we made a packaging survey for Crash. It led to all kinds of unfunny business—like short-weighted containers. Crash favored light weight cartons and containers: they cut shipping costs, he said. From another source we learned that Crash boasted that his Claim Department showed almost as good a profit as his Sales Department—until carriers and insurance people caught on.

Well, after nine weeks, we wound up in Crash's office. He liked our ideas but wanted assurance that our unique cartons would stand up in use. He put his paws on our shoulder and said he would do us a favor: He would give the cartons a test—if we would send him a 30-day supply without cost or obligation!

A schoolboy, who has to prepare a term paper on shipping, writes will we send him all data we have on the subject!

Here's an article from a free-lance writer. It's about handling daily mail. We read it avidly to learn that we should let our secretary read it first—let her go nuts, too?

An association sends printed publicity. Its big headlines claim that the PRR duped Pennsylvania farmers.

The allegation is that Pennsy hired the Carl Byoir public relations outfit to help it fight the state's truckers bid for higher axle weight limits. It is claimed that Byoir's men used Pennsylvania Grange's office and stationery to do the job. Now the farmers are polishing their shotguns for the Pennsy-Byoir boys.

What a public relations job! Some VP or VIP up in Pennsy's plush-carpet alley must be sweating out this fiasco! Sympathetically, we offer him our latest discovery—aspirin with chlorophyll—for stinking headaches.

By now, we're ready for a dose, too. We'll take a break and flush three tablets down with that boiling black brew they call coffee at the Diner across the street.

Yakkety Yak

Back your political arguments with an X at the Polls or forever hold your yakkety yak.

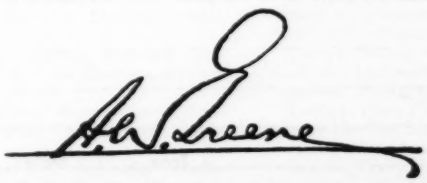
Having three hours between trains, the other night, we dropped in on an American Material Handling Society meeting. Attendance was 210. We met three carrier executives, five traffic managers and seven warehousemen. They're on the ball, not behind it.

The Industry Survey postcards, Page 51, are coming in fine. The first summary of returns will be published next month. If you didn't send in your card, drop it in the mailbox now. Like your vote, every card counts.

Don't miss reading "Judging Accident Responsibility," on Page 23 in this issue. The logic is terrific. It should slash your driver accident rate. We even sprung the test on friend wife. If our fender repair bills drop, Don Buck gets a gold medal.

Now that the "r" months are here, have you ever wondered how oysters are packaged and shipped? An article in our November issue will give the fine points on the blue points.

A Wise Man: The fellow who can give you answers to all your "why's."



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LETTERS
TO THE EDITOR

Professionalization

To The Editor:

I just read with much interest an article in the August issue of DISTRIBUTION AGE (Page 22) entitled, "The Traffic Man and His Case for Professionalization," by H. T. GRISWOLD.

First, let me say that I agree with your editorial comment. Packaging and materials handling should be included in any education for the traffic profession. I do not, however, agree with the views of the author that state and federal licenses should be issued.

What is wrong with the program of the American Society of Traffic and Transportation which sets up standards by the best men in the field? Here is the biggest movement ever undertaken to lift our endeavors. Let's give it our support.

Harry G. Crafts
Branch Traffic Manager
The Coca Cola Co.
Dallas, Texas

To The Editor:

I agree with Mr. Crafts, and I am sure that many will agree with both of us, that Mr. Griswold is urging the type of professionalization through federal or state legislation rather than through a professional society, a motive organization which is distasteful to us.

I hope that it will be possible for DISTRIBUTION AGE to publish an article in which the progress that has been made in professional organization through a professional society will be discussed.

E. G. Plowman
President
American Society of Traffic and Transportation
Pittsburgh, Pa.

To The Editor:

About "professionalization"—I write to make inquiry if you would be interested in having the other side of the argument for a future article in your publication.

The reason I write is because for the past 20 years or more, the matter of professionalization has been before the Associated Traffic Clubs of America membership, and I suspect that those associated with ATC know about as much on the subject as is available to anyone at this time.

I might say that I have addressed Mr. Griswold, setting forth some thoughts and ideas on the subject. Your consideration and advice is appreciated.

R. A. Ellison
Secretary-Treasurer
The Associated Traffic Clubs of America

(*Please Turn to Page* 100)

Chuting the NEWS

ATA Lists Three Major Problems for 19th Annual Meeting, Oct. 6-10

More than 2,500 trucking industry leaders and guests from 48 states will attend the 19th annual convention of the American Trucking Associations, Inc., Oct. 6-10, at New York's Waldorf-Astoria Hotel.

Hon. James A. Farley, president of the Farley-GMC Truck Co., Inc., and former U. S. Postmaster General, will address the first meeting of the five-day session.

The industry leaders will face these problems which they feel have combined to impede the natural progress of truck transportation: (1) The question of adequate highways; (2) Current proposals in some quarters for inequitable and unsound taxes against the industry; and (3) Propaganda attacks by anti-truck interests.

Six noted highway engineers will discuss the highway problem. Finals of the ATA's 12th National Truck Roadeo will be held Oct. 9.

Joe Muser, dispatcher for Bekins Van & Storage, and an ex-Marine captain with WW II and Korean combat duty, receives a Silver Star medal for heroism in Korea from a Marine officer.

Branch Express and Consolidated Open New Motor Freight Terminals

Branch Motor Express Co. and Consolidated Freightways have opened modern, new terminals in Newark, N. J., and Minneapolis, Minn., to handle motor freight shipments in their respective areas.

The Branch terminal, built with a direct connection to the Pulaski Skyway which will effect a 6,000-hr annual saving in highway transit time, holds 200 large tractor-trailer units in its parking area and can service 30 trucks at once at its loading dock.

Consolidated has two new structures; a smaller unit for truck service, repair and maintenance work, and a combination 160-ft loading dock and two-story, 7,200 sq ft capacity office building. A 316-ft chain conveyor will handle as many as 30 loaded freight carts for materials movement within the motor freight terminal.

(*Please Turn Page*)

Coming Events

Oct. 1-3—American Shortline Railroad Association, Annual Meeting, San Francisco, Cal.
Oct. 6-10—American Trucking Associations, Inc., Annual Convention, Waldorf Astoria Hotel, New York, N. Y.
Oct. 7-9—National Association of Shippers Advisory Boards, Meeting, St. Louis, Mo.
Oct. 8-12—New York State Warehousemen's Association, Annual Convention, Whiteface Inn, Lake Placid, N. Y.
Oct. 14-16—Society of Industrial Packaging and Materials Handling Engineers, Seventh Annual Exposition, Chicago Coliseum, Chicago, Ill.
Oct. 15—National Traffic Committee of Trucking Industry, Washington, D. C.
Oct. 15-16—Midwest Shippers Advisory Board, Regular Meeting, Waterloo, Ia.
Oct. 17-18—President's Highway Safety Conference, Chicago, Ill.
Oct. 18-24—National Metal Congress and Exposition, Convention Hall, Philadelphia.
Oct. 20-22—Associated Traffic Clubs of America, 29th Annual Meeting, St. Paul, Minn.
Oct. 20-24—National Safety Council Exposition, Chicago, Ill.
Oct. 22-24—Southwest Warehouse and Transfermen's Association, Annual Convention, Buccaneer Hotel, Galveston, Texas.
Oct. 20-25—National Business Show, New York, N. Y.
Oct. 28-29—Fourth Biennial Materials Handling Conference, Westinghouse, Buffalo, N. Y.
Oct. 28-29—Northwest Shippers Advisory Board, Fargo, N. D.
Nov. 5-7—16th Annual Time and Motion Study and Management Clinic, Industrial Management Society, Sheraton Hotel, Chicago, Ill.
Nov. 7-10—Local Cartage National Conference, Hotel Sheraton Cadillac, Detroit, Mich.
Nov. 10-13—National Association of Railroads and Utilities Commissioners, Little Rock, Ark.
Nov. 20-21—National Industrial Traffic League, New York, N. Y. (Executive Council, Nov. 18-19).
Nov. 30-Dec. 5—Exposition of Power and Mechanical Engineering, New York, N. Y.
Dec. 8-9—Central Western Shippers Advisory Board, Omaha, Neb.
Dec. 18—Materials Handling Institute, Meeting, Hotel Statler, New York, N. Y.

1953

Jan. 19-22—Plant Maintenance Show, Public Auditorium, Cleveland, Ohio.
Feb. 18-20—The Society of the Plastics Industry, Inc., Eighth Annual Reinforced Plastics Division Conference, Shoreham Hotel, Washington, D. C.
Feb. 25-28—National Vehicle Show and Fleet Maintenance Exposition, New York.
April 20-23—Frozen Food Exposition, Grand Central Palace, New York, N. Y.
April 20-23—American Management Association, Packaging Conference and Exposition, Navy Pier, Chicago, Ill.
May 9-15—The Society of the Plastics Industry, Inc., Annual Meeting and Conference, Cruise to Bermuda.
May 18-23—Materials Handling Exposition, Convention Hall, Philadelphia, Pa.

Chuting the NEWS

(Continued from Page 11)

Short Course, Exhibits and Competition To Feature Packaging and Materials Handling Exposition

A group of top level government packaging experts will take part, along with packaging engineers, in a panel discussion on "The Latest Developments in Military Packaging" as the closing feature of the four-day technical short course Oct. 13-16 in Chicago, in conjunction with the Seventh Annual Protective Packaging and Materials Handling Exposition.

Entries for the annual exposition, sponsored by the Society of Industrial Packaging and Materials Handling Engineers, must be received not later than Oct. 10. Both the short course and the exposition will be conducted in the Chicago Coliseum.

According to R. C. Cragg, regional manager of Gould-National Batteries and general chairman of the exposition, this year's event promises to out-strip previous shows in attendance and exhibitions.

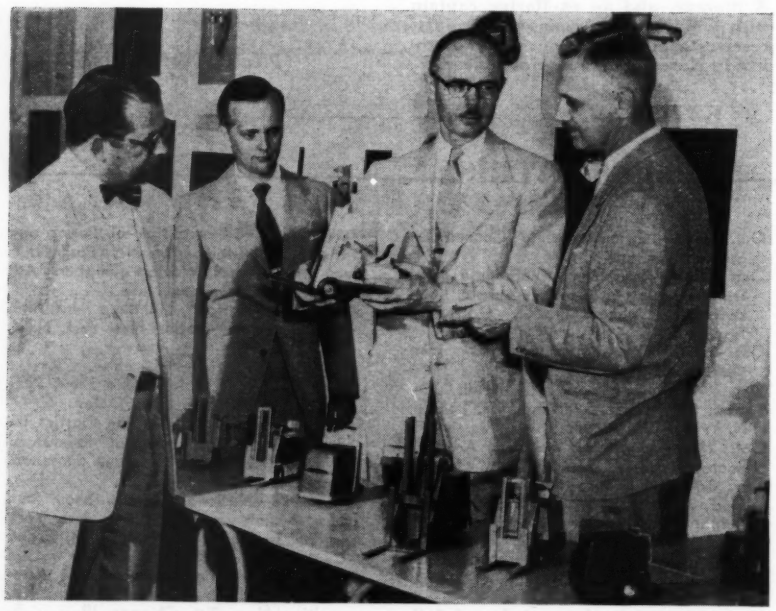
—DA—

Rail Revenues Up

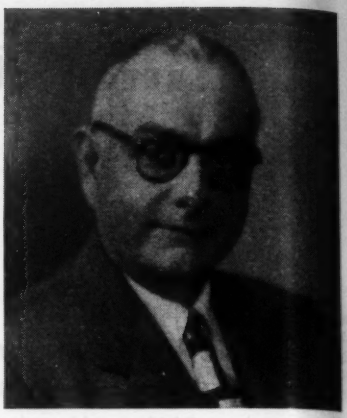
Operating revenues and combined operating expenses, taxes and equipment and joint facility rents of Class I railroads reached an all-time high in the first six months of 1952, according to the ICC's Bureau of Transport and Economics.

10% Freight Rate Cut

A reduction of 10 per cent in freight rates has been offered to shippers across the North Atlantic region by the North Atlantic Continental Freight Conference. The offer comes in the form of a new contract, described as one of the most liberal ever offered shippers.



Officials of the School of the Art Institute of Chicago show one of 28 student-built scale-model industrial trucks to industry representatives at the school's Annual Industrial Design Exhibit. Left to right, are: Orvis T. Henkle, Jr., Vice President, Mercury Manufacturing Co., Robert B. Henkle, Assistant Advertising Manager, Hubert Ropp, Dean of the School, and Joseph Palma, Jr., Professor



John C. Mevius

Announces formation of the Malvern Mill Manufacturing Co. Mr. Mevius, formerly associated with American Engineering Co., is president of the new firm. The mill is in production at its Malvern, Pa., plant, turning out bags and case liners in special and odd sizes for packaging.

Trailer Makers Seek Decontrol of Pricing

The nation's truck-trailer manufacturing industry has requested OPS to abolish price control over its products. The industry also has approved a proposal to drop government unit control over trailer production as of the end of the fourth quarter of this year. The decontrol move grew out of a meeting of the Industry Advisory Committee with officials of the Truck-Trailer Branch and other wings of the NPA. Manufacturers claim that despite an increase in demand, vehicles continue to sell under OPS ceilings.

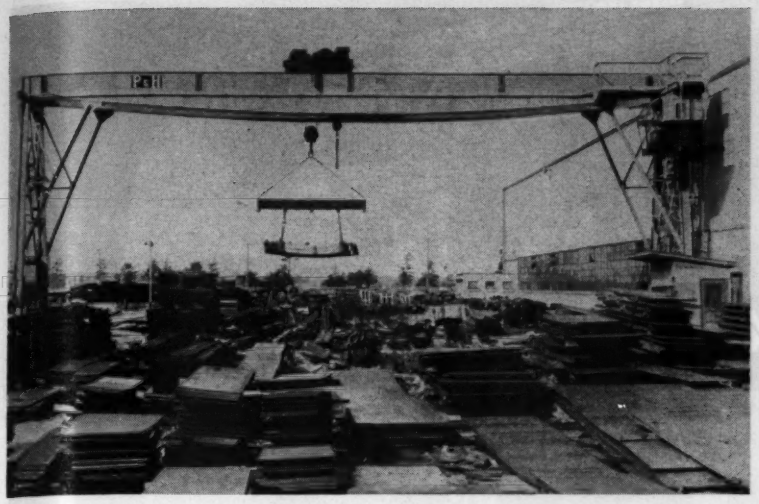
—DA—

Tighter controls over warehouse inspection facilities of USDA will be recommended by the Senate Agriculture Committee as a result of its grain storage investigation.

—DA—

Loading Demonstration

Twenty-five industrial traffic managers and materials handling men recently were shown a graphic demonstration of the kind of modern railroad car loading equipment that is revolutionizing rail shipping. The group, members of the Col. E. S. Evans Seminar in Scientific Loading, Wayne University, Detroit, visited the Evans Products Company in Plymouth, Mich.



A traveling crane for the usual yard service with overhead power lines was of little use for this northern Michigan manufacturer of equipment with high booms. The engineers of Harnischfeger Corp. built a gantry crane of 60-ft span, 15-ton capacity with a three-tone auxiliary with its own power source: built-in Diesel engine-powered generator. Operator controls work from his enclosed, heated cab

Interlake Adds Four

Interlake Terminals, Inc., has added four new members to its chain. New members are: Howard Terminal, Oakland, Cal.; The Bankers Warehouse Co., Denver, Col.; Pacific Storage and Distributing Co., Tacoma and Seattle, Wash.; and Mack Warehouse Corp., Philadelphia, Pa. Other cities in which Interlake operates terminals include: Atlanta, Ga.; Buffalo, N. Y.; Chicago, Ill.; Cleveland, Ohio; Green Bay, Wis.; Kansas City, Mo.; Los Angeles, Cal.; New Orleans, La., and Portland, Ore.

—DA—

DTA has begun an intensive study of port facilities aimed at more efficient operation of motor trucks entering and leaving US ports.

—DA—

Motor Carrier Survey

A survey of refrigerated motor carriers is being conducted by the National Association of Frozen Food Packers. The purpose of the survey is to assemble comprehensive information on the equipment and services provided by truck carriers. If adequate data is obtained, a listing of motor carriers, their equipment, and other pertinent information will be incorporated in a directory and made available to the industry.

Department of Commerce Plans Distribution Unit

Secretary of Commerce Charles Sawyer has announced that his department will soon establish a section devoted to the interests of distribution. Mr. Sawyer explained that government interest has been on production to the neglect of distribution, and our production is now limited only by our ability to use. Using production involves proper distribution, according to the secretary. Details are lacking, but the change probably will be handled by reorganization of the Department's Foreign and Domestic Bureau.

—DA—

Galveston, Texas, will play host to 200 warehousemen from five states Oct. 22-24 at the 35th Annual Convention of the Southwest Warehouse and Transfermen's Association.

—DA—

Low Rates Extended

Low directional air freight rates on eastbound shipments flown by United Air Lines from 17 western cities to more than 20 in the East and Midwest have been indefinitely extended by CAB. The rates, established in 1949 to help balance eastbound and westbound air freight volumes, were to have expired Sept. 1 of this year.

MEN
IN THE NEWS

Materials Handling

Donald P. Berne—new Minneapolis branch manager, Howe Scale Co. Howe also named **William J. Tucey** San Francisco branch manager, and **Lierd E. Grant**, Los Angeles branch manager.

William J. Mathews—elected chairman, New York Chapter of the American Materials Handling Society.

Edward Lebo—new public relations director, Hewitt-Robbins, Inc., Stamford, Conn.

John I. Somers has been named sales manager for the electrically operated Worksaver line by Yale & Towne Mfg. Co., Philadelphia, Pa. Yale also named **T. F. Moriarty** sales manager of the manually operated line.

Kendrick M. Hickman—now assistant sales manager of Link Belt's Ewart plant, Indianapolis, Ind. Link Belt also named **Carl Rudman** manager of agricultural sales at Ewart.

Bernard M. Kewin—new assistant advertising manager, Automatic Transportation Co., Chicago, Ill.

William C. Portman — joined Charles Wm. Doepke Mfg. Co., Inc., Cincinnati, Ohio, as sales manager of the NesTier division.

Jack E. Burch—heads newly formed Industrial Division of Rotary Lift Co., Memphis, Tenn.

Packing and Packaging

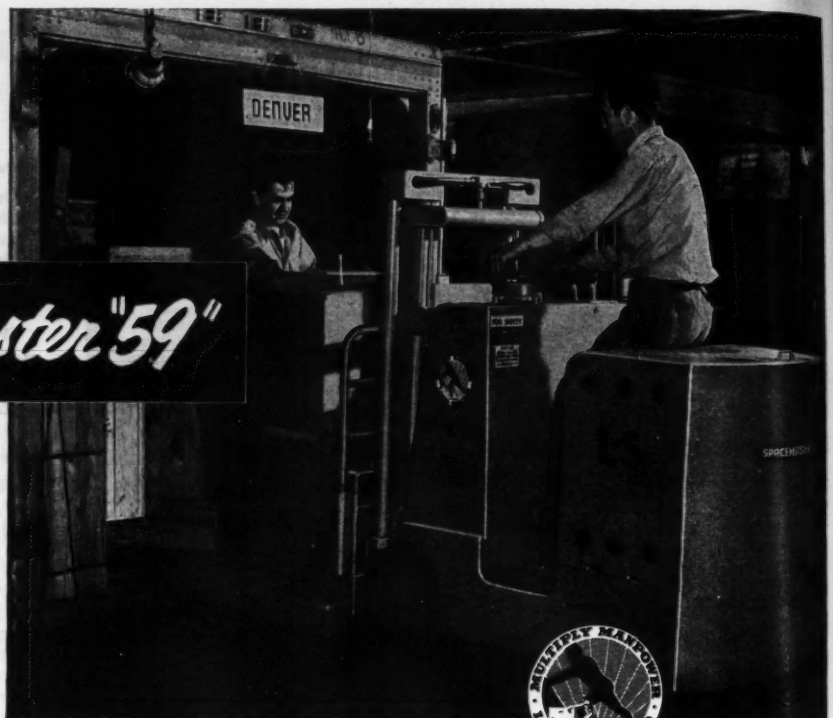
William J. Gass, Jr. — appointed sales manager in St. Louis, Mo., area by National Container Corp. National also named **James J. Glynn** general sales manager of Aurora, Ind., plant.

Glenn E. Maxfield has been appointed plant superintendent by American Box Co., Cleveland, Ohio. He comes to American from General Box, where he was a plant superintendent.

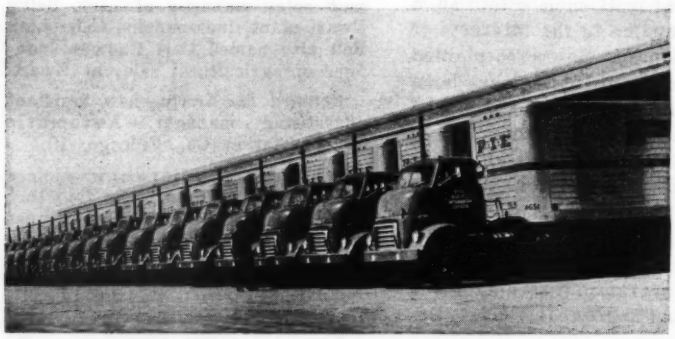
John H. Macleod — joined Robert Gair Co., New York, N. Y., as special representative.

(Please Turn to Page 90)

P.I.E. keeps the Spacemaster "59" on the Dock, 'round the Clock!



The "MASTER" Line



Pacific Intermountain Express is one of the Nation's largest motor freight companies. Operating 379 tractors, 672 semi trailers and 77 straight trucks, P.I.E. services the major cities from Chicago to California.

Mr. C. G. Zwingle, Vice-President of Pacific Intermountain Express, says, "Our 24 hour freight dock schedules demand constant use of fork trucks with minimum time-out for maintenance and inspection. We have 42 Spacemaster "59's" that meet these rugged requirements with greater dependability." Mr. Zwingle adds, "We also like the ease with which the "59" maneuvers throughout our freight dock floor plans. In short, we use these lift trucks in all of our major terminals from Los Angeles to Chicago because they fit all of our operating requirements."

If you are now using gasoline-powered trucks on *your* docks, the new Spacemaster "59" — specially designed for motor freight terminals — will *slash* your maintenance and operating costs . . . and give you the full load, full day, stronger operation your terminals demand.

LEWIS-SHEPARD

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Here's what the Spacemaster "59" offers you

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- 3 times longer life than gas trucks
- ⅓ the maintenance and operating cost of gas trucks
- 50 F.P.M. lifting speed (with full load)
- 6 M.P.H. hauling speed (with full load)
- 1500 lbs. capacity (48" load length); 2000 lbs. capacity (30" load length)
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Washington DA

By Karl Rannells, *Chilton Washington News Bureau*

Materials Handling Expansion Targets DPA figures that present production capacity of plants which manufacture materials handling equipment is not enough to keep up with increased production of defense and civilian goods. If the industry is to be able to meet all requirements by 1954, says DPA, it will have to expand its productive capacity by at least $26 million above that of early 1951.

About $23 million worth of the new capital investment has already been programmed—mainly for production of industrial stocks, fork lifts, and the larger types of cranes, hoists, and conveyors. Government incentives in the form of fast tax write-ofi certificates have been granted covering this amount.

Truck Output Current outlook for motor truck production is brighter. It looks now as if production next year will not be less than 1,200,000 units plus 70,000 trailers. Production during last quarter 1952 has been currently estimated at not more than 185,000 vehicles while the factories are building up metal and parts inventories which were depleted during the steel strike. But NPA has set a tentative target for first quarter 1953 of 300,000 trucks and 15,000 trailers as a basis for allocation of materials to the industry. Truck manufacturers had sought material allocations which would permit production of at least 350,000 units for the first quarter.

Government Information Small manufacturers who wish to get in on these expansion programs and tax deals are urged by SDPA to file applications as soon as possible with the nearest field office of NPA. Information and advice concerning expansion needs and government assistance can be obtained from SDPA field personnel who have been assigned to NPA offices at Boston, New York, Philadelphia, Detroit, Richmond, Cleveland, Atlanta, Chicago, Minneapolis, Kansas City, Dallas, Denver, San Francisco, Los Angeles, Seattle, and Portland.

Pricing Boosts One definite result of the steel strike will be higher prices when the user goes to buy new handling equipment and replacement parts in the near future. Manufacturers finally won their fight for a 100 per cent pass-through to their customers of the higher price they themselves have to pay for steel, copper and aluminum. But as of mid-September, OPS was still standing pat with its refusal to allow a pass-through of increased labor and freight costs. These, OPS said, must be absorbed by the manufacturer.

Small Plant Expansions SDPA thinks that small business has been greatly overlooked in the matter of expanding materials handling equipment capacity. And with respect to this industry, the SDPA means plants which employ 300 or less when it talks of small business. As a result, the SDPA has gotten DPA to agree that at least 15 per cent of overall expansion aid should go to small business—roughly $3.9 million.

Since the bulk of government aid has already been given to large plants making the heavier types of equipment, this means that most of the $3 million worth of tax certificates still to be issued will be earmarked for a "reasonable" length of time for issuance to small firms. Officials say this should work out very neatly since the biggest need for new capacity at present is for smaller types of cranes, hoists, monorails, and so on which can be turned out handily by small plants.

Materials Supplies No matter whether a decision due later this year is for more guns, more butter, or more of both, it now looks as if production levels will remain higher. The DPA says now it had been "overly pessimistic" about the effect of the steel strike and that it will not take as long to recover as it had believed. Head Man Fowler predicts that there will be adequate inventories of steep, copper and aluminum by Jan. 1 to step up military output without further diversion from strictly civilian types of goods. He says that by the end of the year, a choice will have to be made whether to keep a few key controls and reach defense goals before 1955 or to remove controls and let military production proceed at present rates.

Railway Equipment The freight car program is still having its troubles. The NPA is expected to allocate enough materials to allow a first quarter 1953 production of 31,500 freight cars and 936 locomotives —the full amount asked by DPA. But production has been sagging and this figure is considerably below the 11,000 a month rate which mobilization officials say is necessary for national security. One reason for the lagging program is that railroads are not placing new orders fast enough to cover even current output.

Pumping Machinery Small business is also to have a chance for government help in expanding a less direct line of distribution equipment. Expansion target for pumping machinery—including varied pumps, compressors, industrial fans, blowers, etc.—has been set at $35 million, not later than July, 1954. Here, again, SDPA has

(*Please Turn to Page* 73)

Only White provides cost-saving SPECIALIZED DESIGN at production price

'CROSS COUNTRY
Extra revenue because the White 3000 permits use of 35 ft. van for more capacity without use of tailgate.

'CROSS TOWN
The White 3000 design permits extra-capacity body without increasing overall length or sacrificing maneuverability.

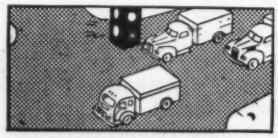
YOU CAN boost revenue... cut operating cost... step up efficiency... with White *Specialized Design* —for your exact truck needs... 'cross town or country. Always ready for the work at hand, Whites are tailored to your operating conditions yet built by most modern production methods and efficiency.

Ask your White Representative how White Trucks cost less... do more work... last longer ... in your service.

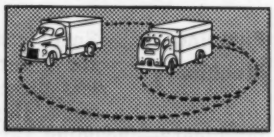
SPECIALIZED DESIGN White

THE WHITE MOTOR COMPANY
Cleveland 1, Ohio

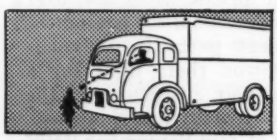
IN EVERY FEATURE • TOMORROW'S TRUCK TODAY



SAVES TRAFFIC TIME
Easy to drive in your traffic because Whites are engineered to your operations.



SAVES MANEUVERING TIME
Shorter wheelbase and wider tread front axle gets the White closer for loading and unloading.



NEW SAFETY FEATURES
Better driver vision all-around because of new cab design, big windshield.

BIG CAB SAVES STEPS
Plenty of crew room and riding ease. Time-saving cab accessibility from either side.

Circle No. 120 on Card, Page 51, for more information

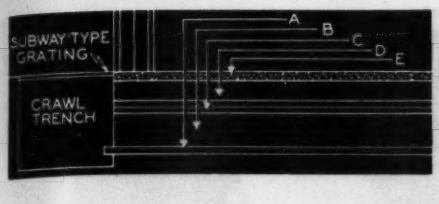
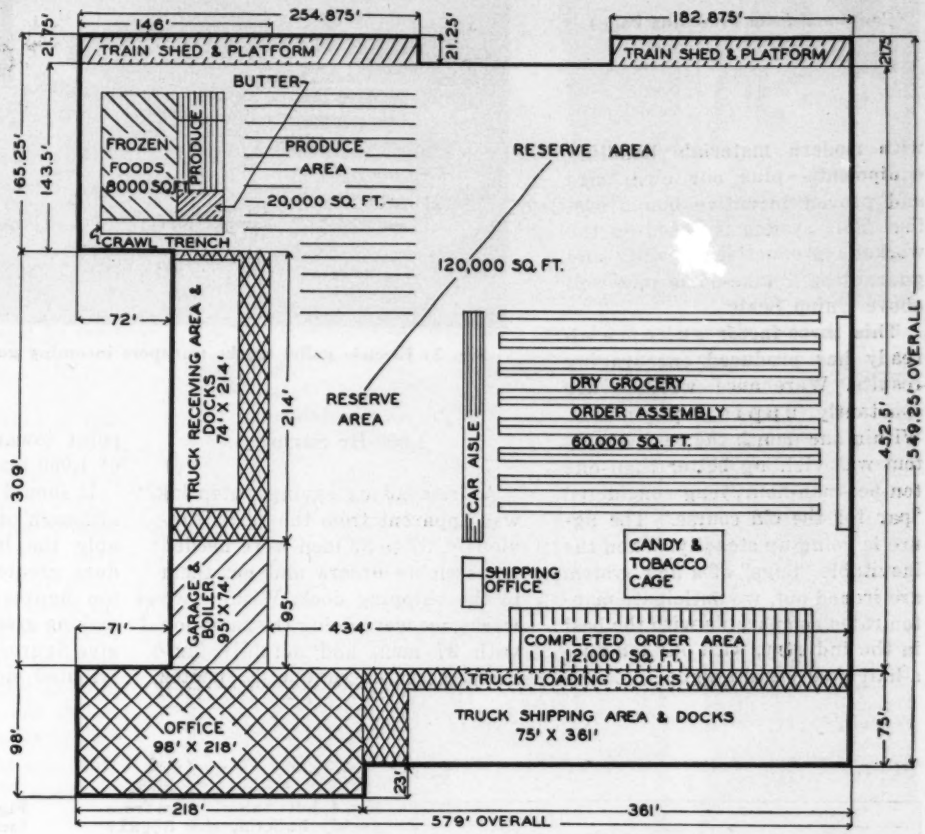


Fig. 1, right: Floor plan of entire building showing all inside and outside dimensions. Fig. 2, above: drawing of frost-heave apparatus showing—A, 6-in. open bell-end pipe on 10-ft centers; B, 18-in. layer of cinders; C, 4-in. concrete slab with electric heating conduit embedded; D, 8-in. rock cork insulation, and E, 4-in. concrete wearing slab

Floor plan courtesy of Robert Montgomery Brown, Architect



Wholesale Grocer Develops Profitable Handling Formula

Harmonious blend of plant, men and MH equipment yields impressive man-ton figures for the nation's largest cooperative wholesale grocery organization

By Bernhardt Mosler, *President*
Frankford Grocery Co., Inc., Philadelphia, Pa.

OUR firm, Philadelphia's Frankford Grocery Co., encountered problems in carload lots this summer when we moved from an old multi-story building to a big new one-floor operation without loss of operational time.

Frankford is a 100 per cent cooperative organization, delivering weekly to more than 2,100 member stores.

For 64 years we have been serving these small neighborhood outlets with dry groceries. In recent years, we added produce and frozen foods. The new lines, and expansion limits imposed by the old building, prompted the need for new quarters.

Three-Point Plan

In planning the new operation, we attempted to integrate a custom-designed and completely up-to-date physical plant

. . . Profitable Handling Formula

(Continued from Preceding Page)

with modern materials handling equipment — plus our own tried and proved incentive bonus system. This system is based on the worker's productive capacity and guarantees a take-home pay well above Union Scale.

This three-factor scheme already has produced encouraging results. Warehouse workers are constantly upping production. Within one month the revised system was yielding better than one ton-per-man-hour, long considered "par for the old course." The figure is going up steadily. When the inevitable "bugs" of a new system are ironed out, we anticipate manton rates comparable with the best in the industry, with our ton-and-a-half goal within sight.

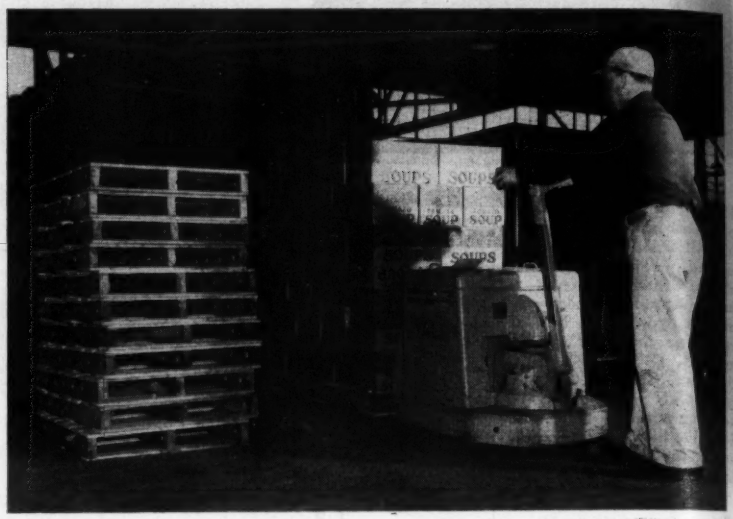


Fig. 3: Electric pallet trucks transport incoming goods to assembly area

1,000-Hr Saving

A tremendous saving potential was apparent from the start. Previously, 37 to 39 men were needed to assemble orders and get them to the shipping dock. Within two weeks, we were doing the same job with 27 men, and actually handling increased volume. Estimates point toward an eventual saving of 1,000 man-hours per week.

It should be explained here that although other grocery firms, notably the large chains, may produce greater or comparable manton figures, we feel that we are making great strides. More impressive figures in this field can be attributed mostly to an ideal distri-

Fig. 4, left: Sample page from weekly bulletin, size 8½x11

COLUMN 7 | COLUMN 8 | COLUMN 9

B

CAKES

CRACKERS

CATSUP

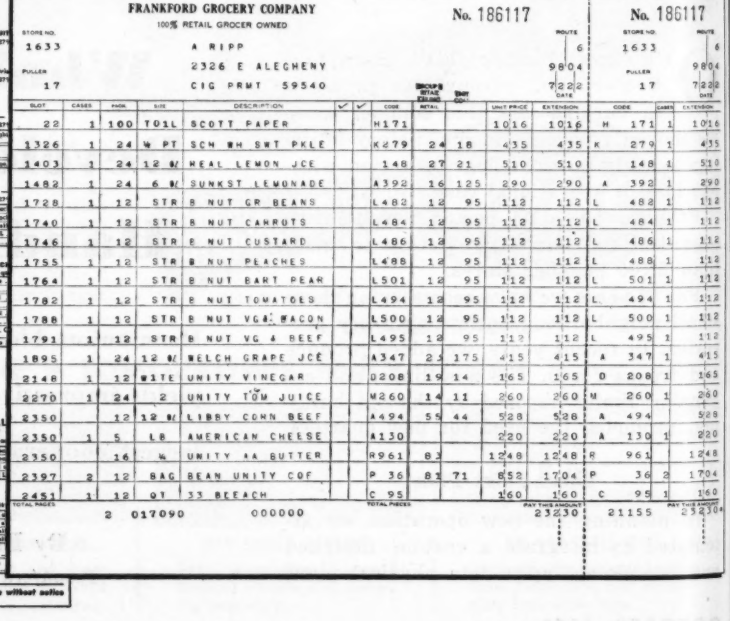
BREAD CRUMBS

DRIED FRUITS

CEREAL

All prices are subject to change without notice

Fig. 5, below: Final IBM form facilitates daily order pulling


FRANKFORD GROCERY COMPANY
100% RETAIL GROCER OWNED
No. 186117
STORE NO. 1633
A RIPP
2326 E ALEGHENY
CIG PRMT 59540
ROUTE 6
PULLER 17
9804
7222
DATE

SLOT	CASES	PACK	SIZE	DESCRIPTION	CODE	RETAIL	UNIT PRICE	EXTENSION
22	1	100	TOIL	SCOTT PAPER	H171		1016	1016
1326	1	24	¼ PT	SCH WH SWT PKLE	K279	24 18	435	435
1403	1	24	12 0/	HEAL LEMON JCE	148	27 21	510	510
1482	1	24	6 0/	SUNKST LEMONADE	A392	16 125	290	290
1728	1	12	STR	B NUT GR BEANS	L482	12 95	112	112
1740	1	12	STR	B NUT CARROTS	L484	12 95	112	112
1746	1	12	STR	B NUT CUSTARD	L486	12 95	112	112
1755	1	12	STR	B NUT PEACHES	L488	12 95	112	112
1764	1	12	STR	B NUT BART PEAR	L501	12 95	112	112
1782	1	12	STR	B NUT TOMATOES	L494	12 95	112	112
1786	1	12	STR	B NUT VG & BACON	L500	12 95	112	112
1793	1	12	STR	B NUT VG & BEEF	L495	12 95	112	112
1895	1	24	12 0/	WELCH GRAPE JCE	A347	23 175	415	415
2148	1	12	WITE	UNITY VINEGAR	0208	19 14	165	165
2270	1	24	2	UNITY TOM JUICE	M260	14 11	260	260
2350		12	12 0/	LIBBY CORN BEEF	A494	55 44	528	528
2350	1	5	LB	AMERICAN CHEESE	A130		220	220
2350		16	¼	UNITY AA BUTTER	R961	83	1248	1248
2397	2	12	BAG	BEAN UNITY COF	P 36	82 71	852	1704
2451	1	12	01	33 BLEACH	C 95		160	160

TOTAL PAGES 2 017090 000000 TOTAL PIECES PAY THIS AMOUNT 23230

No. 186117 — STORE NO. 1633 — ROUTE 6 — PULLER 17 — 9804 — 7222 — DATE

CODE	CARTS	EXTENSION
H 171	1	1016
K 279	1	435
148	1	510
A 392	1	290
L 482	1	112
L 484	1	112
L 486	1	112
L 488	1	112
L 501	1	112
L 494	1	112
L 500	1	112
L 495	1	112
A 347	1	415
0 208	1	165
M 260	1	260
A 494		528
A 130	1	220
R 961		1248
P 36	2	1704
C 95	1	160

21155 PAY THIS AMOUNT 23230

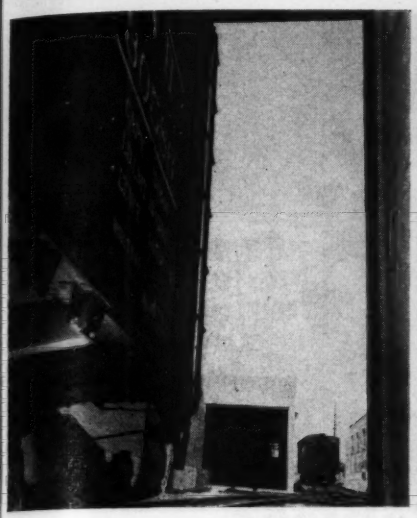


Fig. 6: Sheds are connected by crossover

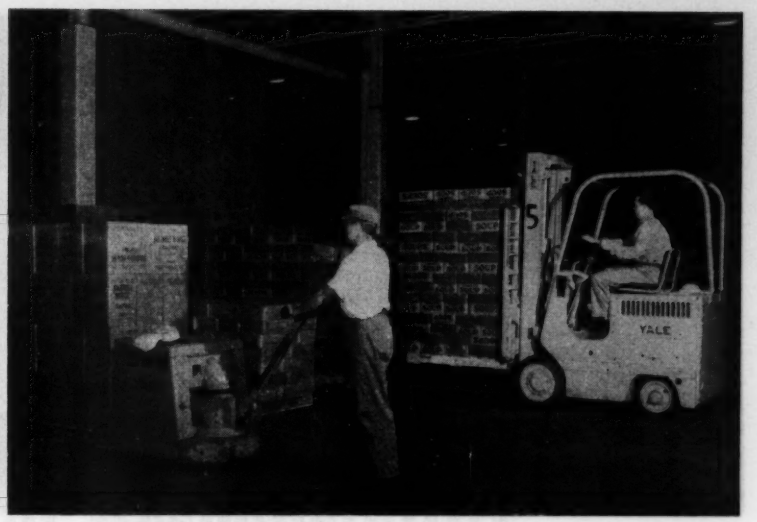


Fig. 7: From receiving fork trucks move loads to assembly racks or reserve

bution cycle—large volume to few retail outlets.

Where a chain might serve from six to 60 stores in one city, Frankford services 2,100 corner stores, many of which gross less than $300 a week. A chain will drop-ship many large volume items direct to its stores without interim warehousing. Frankford in many instances delivers as little as 50 lb of these bulk items in one order. The larger companies ship in full trailer or truck loads to one stop. We ship as many as 20 stops in one 7½-ton truck.

Room for Expansion

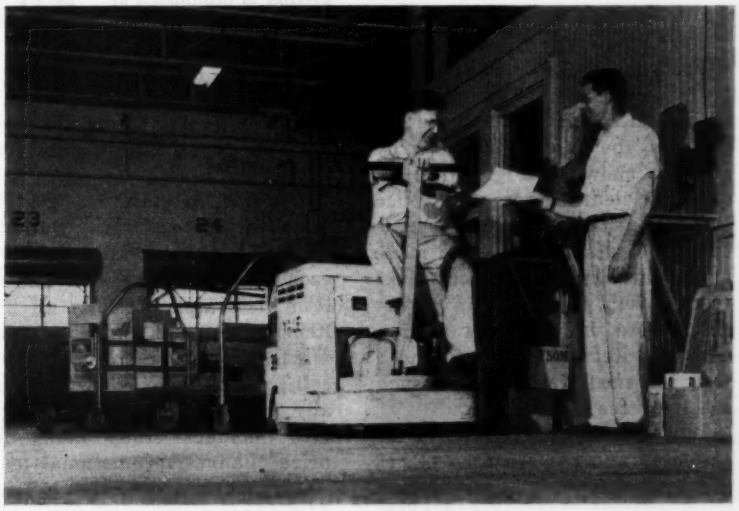
We kept an eye to future as well as immediate needs in designing the new 300,000-sq-ft warehouse, and in selecting materials handling equipment that would meet requirements of our time-tested incentive plan. Drawing on 64 years of experience, we provided for future expansion by charting past progress—through the support of our 2,100 member stores.

A floor study of materials movement, Fig. 1, shows merchandise entering the plant through one of 14 receiving doors in an enclosed trucking area, Fig. 3, or at one of two rail receiving sections, Fig. 15, also enclosed, and connected by crossover, Fig. 6. The rail sheds have a combined indoor capacity of nine freight cars.

(*Please Turn Page*)

Fig. 8: Lift King allows for easy stacking with 19-ft clearance limit

Fig. 9: Puller hauling empties receives orders (Fig. 5) at shipping office



. . . Profitable Handling Formula

(Continued from Preceding Page)

Incoming foodstuff, with the exception of produce, is palletized immediately and moved by electric pallet truck to receiving or, in the case of small lots, direct to the assembly area. Although the pallets we selected cost roughly $1 more each than the conventional type, we expect that their special design will return the investment in reduced pallet breakage and less damage to packages and cartons.

Fig. 10, above, left: 11-ft aisle widths for freedom of operation

Fig. 11, above, right: Large cold room doors give ample clearance

Fig. 12, right: Congestion is minimized at 27-door shipping dock

19-Ft Stacking

From receiving areas, a battery of five electric fork trucks with tilting telescopic masts move the goods to the reserve or assembly areas as shown in Fig. 7. A 19-ft stacking clearance is maintained throughout the warehouse, Fig. 8. The order assembly area is made up of our own design steel racks (see cover photograph), a car aisle where the very fast moving and bulk items are picked, and a cage for small fragile items such as cigarettes and candies.

Our speed sequence plan in the assembly and reserve area places the fastest moving items nearest the shipping point, with slow movers stocked at more distant locations.

The system starts in the grocer's store with a "Unity Bulletin" published weekly and mailed to each member store, Fig. 4. The bulletin lists alphabetically all 2800 items by name, code number, wholesale price, mark-up and OPS ceiling. The booklet, which usually runs better than 30 pages, also includes trade news, late price changes, promotional material and brand advertising. Pages are approximately the size of DISTRIBUTION AGE pages.

With each bulletin, the grocer receives an order form and return envelope. He orders by code number only, never referring to an item by name. With this type system it takes the grocer a matter of minutes to write up and post his weekly order.

When the grocer's order reaches our office, girls pull the items from an IBM tub file in the same alphabetical sequence as the Unity

(*Please Turn to Page* 44)

Are You a Safety Expert?

JUDGING
Accident Responsibility

Non-professional means of judging accidents causes drivers to expect protection — slows analysis of leading factors

IF FLEET operators ever hope to make any great strides in reducing accident rates, they must reorient their thinking on accident responsibility. An accident in which your driver was a *contributing cause* is just as expensive as one for which he was the *direct cause.*

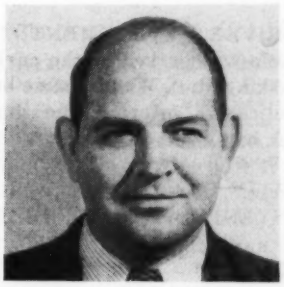
Too many fleet operators are prone to look at an accident from the strictly legal point of view: Which vehicle struck the other? Which driver's actions were directly responsible for the collision or injury?

Another too common point of accident analysis is that which attempts to determine which driver was *most* at fault.

Both types of thinking are outmoded and unsatisfactory for professional driving standards.

Accident Responsibility

Most fleets are teaching drivers the defensive driving technique. They should follow this up with teaching accident responsibility based on, let's call it, baseball rules: It's not only who tags whom



By Donald S. Buck

Traffic Safety Engineer
Dept. of the Army, Washington, D. C.

for the out, but also that errors will be charged against the player who is caught off base and, thus, gets himself put out.

Now, it should go without saying that in order to teach this new code of accident responsibility, the teacher also must know the code and its rules.

In teaching army and fleet safety personnel the basic rules for judging accident responsibility, I have spent many hours in research and study of typical common highway accidents. The students in our traffic and safety courses are given about 20 of these actual cases. They are asked to read the driver's accident report very carefully and indicate whether "our" driver was the CAUSE or VICTIM of each of the accidents.

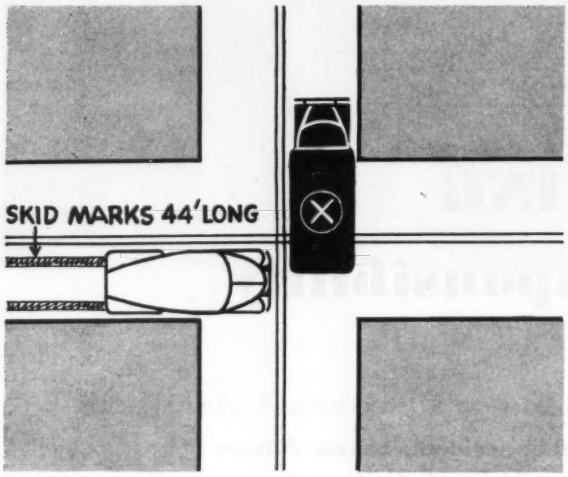
Explain Why

Then, and this is very important, they are asked to explain WHY the respective drivers either caused the accident or were the victims. This provides a key to their knowledge of accident-causing situations, and the logic employed in arriving at such decisions. If their knowledge and logic is faulty in the classroom, it surely will be in the field; therefore, must be corrected immediately.

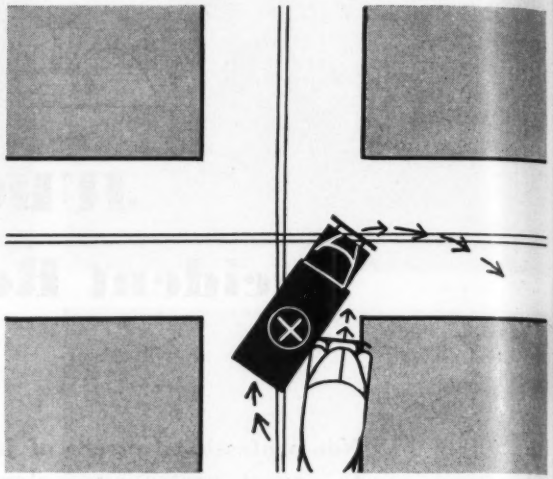
Of course, the ideal situation is to take such groups out on real accident investigations. Whenever possible, we do this. Further, to provide as much of such field study as possible, often we simulate real accident situations—even

JUDGING Accident Responsibility (Continued from Preceding Page)

Can You Pass This Basic Test? Here are six cases representative of the 20 used by the



No. 1: Was our driver the CAUSE? . . . or the VICTIM?



No. 10: Was our driver the CAUSE? . . . or the VICTIM?

to coaching the respective drivers in reporting their respective alibis and pre-accident situations. This has proved to be very effective.

On the following pages are a few of the classroom cases we use, so that the reader may test his knowledge and ability to judge accident responsibility based on modern defensive driving techniques.

In passing judgment on these accidents, the reader will assume the following: Each report is based on a true accident; each driver's report is true, complete and accurate in every detail.

Sketches of Accidents

Sketches showing how each accident occurred are supplied. The vehicle marked by the letter X was operated by your (our) driver. To test your judging ability, the correct answers will be found on Page 69 in this issue.

To make the procedure absolutely clear, the following is an example of how the reader should go about this test.

DRIVER'S STATEMENT: "My vehicle was parked at the curb in a parking stall. When I came back, a policeman informed me that a truck had swerved to miss a child, but it s i d e s w i p e d my parked vehicle."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE? —— or VICTIM? —— (Check one.)

INVESTIGATOR'S DECISION: This driver was the VICTIM of this accident, because there is no evidence of safe driving failure on his part.

That's all there is to this test. Due to space limitations only a few will be given. Let's start with

CASE No. 1

DRIVER'S STATEMENT: "I was driving within the speed limit of 30 mph, when I approached the intersection. There were no signs nor lights. I was almost across the intersection when this other guy, coming from my left, hit my left rear fender. He left skid marks 44 ft long. I did not put on my brakes, because I tried to get out of his way when I realized how fast he was going."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE? —— or VICTIM? ——.

CASE No. 3

DRIVER'S STATEMENT: "I was driving along in heavy traffic

COMPLETE TEST

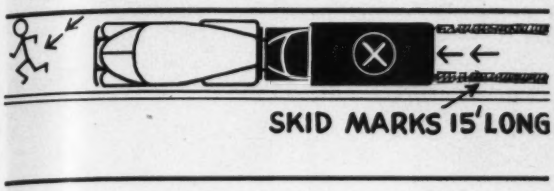
FREE

Through special arrangement with the author, one of the nation's leading experts on safety and driver training, DISTRIBUTION AGE is privileged to offer the complete set of Accident Responsibility Test Cases to interested executives.

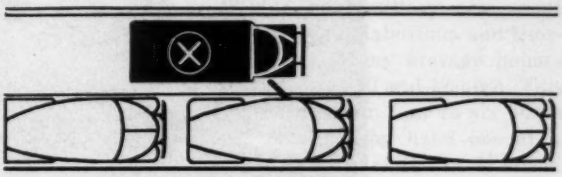
Because the supply is limited, only one set can be supplied to each company. Requests must be made on company stationery.

Author in his classes. (For Answers, Turn to Page 69)

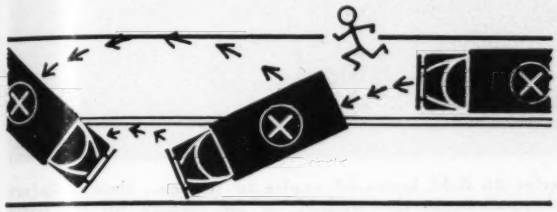
It requires more than average knowledge and correct attitude of defensive driving techniques to make a passing grade in this test.



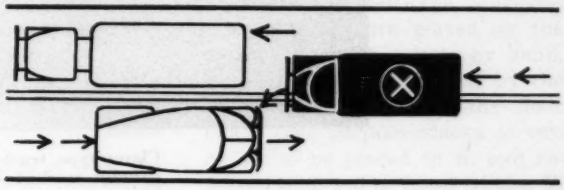
No. 3: Was our driver the CAUSE? . . . or the VICTIM?



No. 12: Was our driver the CAUSE? . . . or the VICTIM?



No. 4: Was our driver the CAUSE? . . . or the VICTIM?



No. 14: Was our driver the CAUSE? . . . or the VICTIM?

CASE NO. 2

DRIVER'S STATEMENT: "I was driving at 45 mph at night on the highway. A speeding car passed me from the rear, cut in suddenly, and crowded me off the pavement. My right wheels hit a soft shoulder, so I pumped the brakes and slowed down to about 20 mph.

"Then I tried to ease back on, but the right rear tire skidded along the edge of the pavement, causing me to swerve and hit an oncoming vehicle head on. My wheels cut into the shoulder, although it looked level with the pavement."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?—or VICTIM?

CASE NO. 5

DRIVER'S STATEMENT: "It was dark. I was driving along the highway, when I met a vehicle with blinding headlights coming toward me. The other driver refused to dim his lights, and it was impossible to see where I was going, so I ran off the road on the right side and upset. This accident was caused by blinding headlights. If the other guy had dimmed, the accident would not have happened. This other fellow didn't even stop, so I don't know who forced me off the road."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?—or VICTIM?

CASE NO. 9

DRIVER'S STATEMENT: "I pulled up to the crossing. There was no stop sign. I came almost to a full stop, looked in both directions. There was a perfectly clear view each way, and no one was coming. I shifted into second and started on across, when this other car shot out of nowhere, going like a streak, horn blowing, and slid into me! He must have been travelling very fast, since he skidded 80 feet! I skidded only 10 feet. Luckily there was very little damage, but he caused the accident by speeding. He simply came out of nowhere!"

INVESTIGATOR'S DECISION: Was our driver the CAUSE?—or VICTIM?

CASE NO. 13

DRIVER'S STATEMENT: "Since our state is pretty hard on drunken driving, I went to the party and actually drank only two beers.—and not another drop! I had nothing at all to drink during the last half-hour before I started home.

"I started to pass a slow-moving vehicle, when it slowed suddenly; because I barely nicked him as I went around. Immediately the police gave me the drunkometer test, checked my story and cleared me."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?—or VICTIM?

when the guy ahead of me stopped suddenly, without any warning or signal at all. We were traveling only 20 mph, and I was at least 25 ft behind him. I slammed on the brakes and hit the horn, and cut my wheel, but I didn't have a chance, and I slid into his back end.

"The police told me that the other driver was obstructing the highway.

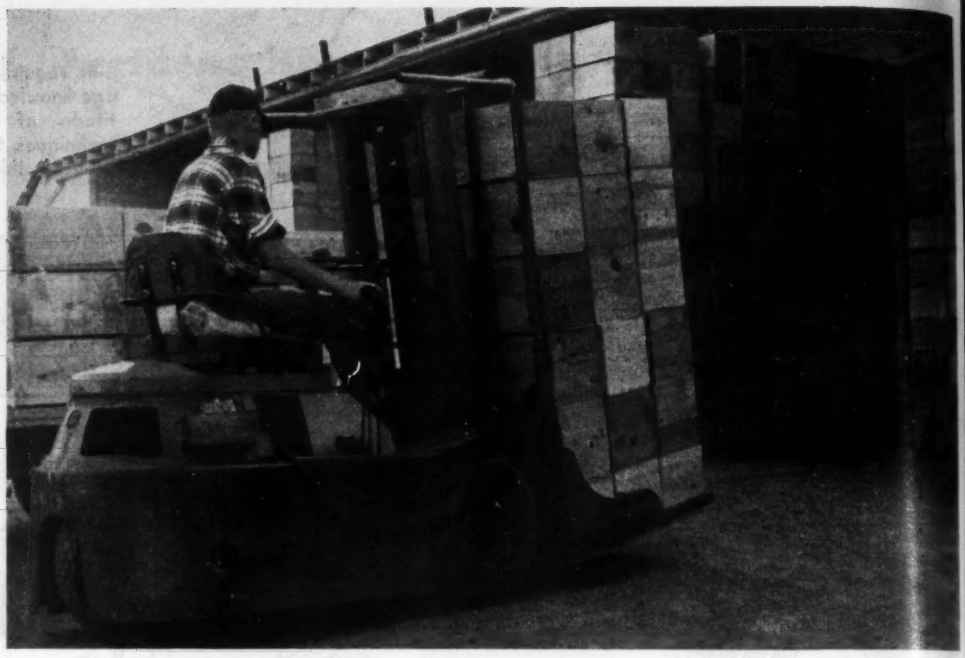
"He admitted that he gave no signal at all. He stopped suddenly when a child darted out ahead of him, and caused the accident by not giving me fair warning."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE? —— or VICTIM? ——.

CASE No. 4

DRIVER'S STATEMENT: "It was brake failure pure and simple and I am sure lucky that no one else was coming toward me.

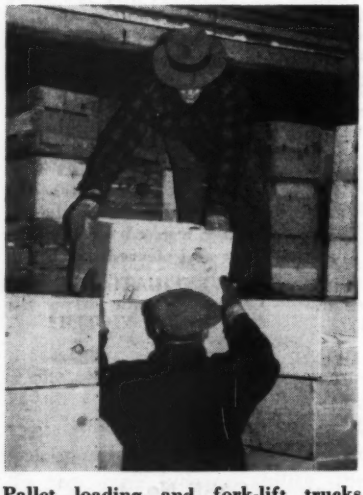
(*Please Turn to Page* 38)



Clamp-type truck carries 36 field boxes of apples to storage. Unit loads are usually stacked on the pallets, in the orchard, as the pickers fill the boxes

How to Slash Fruit

Agriculture Department study of 250 orchards finds



Pallet loading and fork-lift trucks eliminate this manual handling job. Although stacking additional boxes on the original pile of six must be done here by hand, fruit growers realize they are spending too much on manpower to be economical. Surveys indicate steps have been taken to mechanize this handling

RESEARCH by the Agriculture Department indicates that producers and distributors of materials handling equipment may be able to develop a relatively new and potentially fertile field. Their prospect is commercial horticulture and, to a lesser degree, farming on a commercial scale.

Large-scale fruit growers and farmers are faced with several problems. One is the necessity for fast movement of specific crops, such as peaches and cherries, at the time of maturity. Another is rising production costs. Both contribute in no small way to the third major problem — manpower.

For the past decade or so, Census Bureau reports have shown a steadily declining farm population. Seasonal aspects of agricultural work offer but little attraction to the dependable type of man who wants a steady, year-round job. Nor can rural pay scales often hold their own against the lure of better hours and rates to be found in many industrial fields. The net result has been a greater dependency by agriculture upon transient labor.

Study Use of MH Equipment

Considerable spadework has been done by the Agriculture Department in determining the economic feasibility of materials handling equipment for the orchardist. More research contracts

Fork-lift truck removes a loaded pallet from the truck bringing it from the field. Loads are palletized in the field and placed on the truck by fork trucks

Handling Costs

preference for fork lifts as MH equipment

By Karl Rannells

DA, Washington Correspondent

will be made and carried out this year to get a complete answer.

One such project was carried out last year in the orchard country of the Pacific Northwest. Operations of some 250 apple packing and storage houses were studied, all of them producing on commercial scale. It was aimed specifically at finding out (a) what types of equipment were being used, (b) the differences in cost, and (c) the efficiency and savings accomplished thereby.

Hand Trucks and Conveyors

It was found that more than a third, or about 90 plants, were depending upon two-wheel, clamp-type hand trucks alone for transferring the apple boxes (crates) from the motor trucks to storage houses or packing sheds. Forty-eight per cent, or 120, were using belt or floor chain conveyors in combination with the hand trucks for loading and unloading.

But little more than 10 per cent, about 26 of the packing and storage plants, were making use of fork lifts and pallets.

Generally the basic operations are for the loaders to stack the boxes six-high in the motor trucks or trailers which collect them in the orchard. At the packing or the storage house, a stack of six can be transported into the building by a hand truck.

Cut Manual Lifting

Where no auxiliary equipment is used, this is laborious and time-consuming. Many storage houses pile the boxes 10 and 12 high. This means that from four to six boxes must be lifted by hand one at a time to the top of the basic stack.

Use of the belt conveyors eliminates the use of the hand truck between the motor truck and the storage point within the building. In using the belt-type conveyor, boxes usually are placed on the conveyor one at a time by hand, and removed and stacked by the same method. Use of the floor chain type permits stacks of two or six to be placed on it, and removed with aid of hand trucks. In both instances, two or more men are required at the storage end to receive the crates.

Savings With Fork Lifts

Obviously, the major savings in cost and time are accomplished when it is feasible to use fork lifts. Pickers or field workers palletize the boxes and crates, requiring little time on their part. At the packing or storage plant, the fork lift shifts the pallet from the motor truck directly on the storage space, stacking it if required, in a single operation.

Two other features of the fork lift operation are important. One is that handling by unit loads or pallets results in less bruising and damage to the fruit. The other is that the motor trucks bringing the commodity from the field are tied up for a shorter period at each end. This applies equally to loading time in shipping.

Less Manpower—Better Results

As a specific example, one Washington orchardist whose annual crop of apples runs to 25,000 bushels or more had been using two tractors, four orchard trailers, and seven men in handling his crop between orchard and grad-

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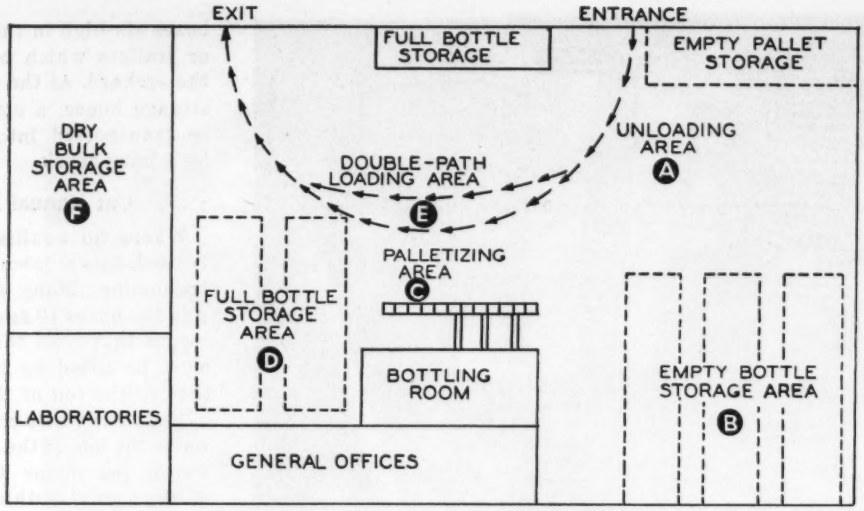


Arrows trace the path of delivery trucks as they are loaded by fork-lift trucks

Chicago Pepsi Cuts Loading T

INSTALLATION of a fork-truck and a pallet materials handling system has cut delivery-truck loading time 83 per cent, enabling the Pepsi Cola Bottling Co., Chicago, to utilize the full output capabilities of its five bottling machines.

The former delivery-truck loading and unloading time of three hours has been reduced to only 30 minutes because of greater unit loads handled by the fork-truck pallet system. The company now services 90 trucks daily—some of these making two and three trips—while the previous materials handling system could accommodate only 35 trucks daily.

Man-Hours, Breakage Costs

An analysis of operating costs showed that man-hours and bottle breakage were two major factors in the high cost of distributing Pepsi Cola. In addition, the bottled goods were not moved fast enough to allow full production of the bottling machines.

The plant analysis indicated that use of fork trucks along with the palletization of goods leaving the bottling machines would not only expedite loading and permit use of full bottling machine capacity but would also reduce bottle breakage and give better sanitation control. An additional benefit, gained through the stacking ability of the fork trucks, was an increased storage capacity resulting from the utilization of plant air space.

Limits of Old System

Under the old distribution system, the maximum bottling-machine output was limited by the ability to remove goods from the area. Most goods were moved by hand, hand-truck or roller conveyor. Delivery trucks would check in about 5:00 a.m., unload the empty bottles and then each driver would load his own truck by hand. This operation took as much as three hours to complete. The time limitation of a working day prevented loading more than 35 trucks per day. Thus, bottling machine output was dictated by loading capabilities.

Conversely, the new materials handling system was tailored to load the maximum attainable output which, in effect, was the maximum output of the bottling machines. Five machines, each capable of producing 600 cases of bottled goods per hour yield a total of 3,000 cases per hour. Palletizing into unit loads of 50 cases, 10 layers stacked five high, requires the removal of 60 unit loads per hour.

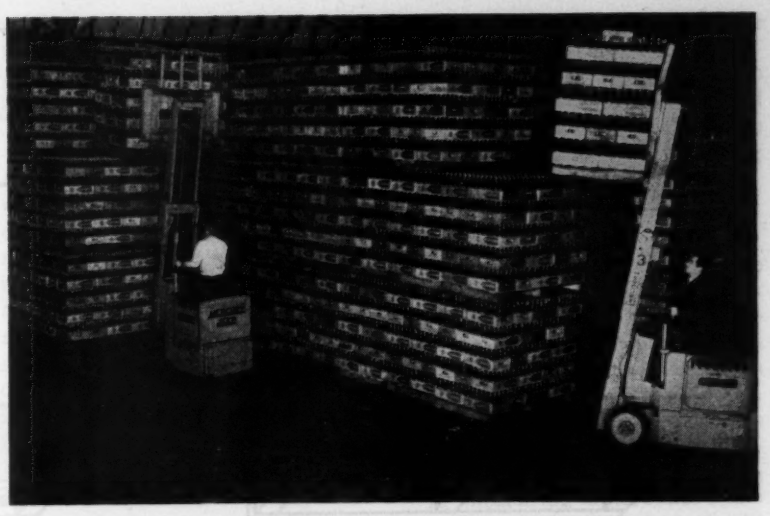
Modernization of the materials handling system was achieved through the purchase of eight fork trucks with auxiliary equipment. Under the present system, the delivery trucks, now equipped to accommodate palletized unit loads, are relieved of the empty cases by fork trucks working in the unloading area "A" shown above.

System of Routing

These palletized empties are taken directly to the empty-bottle storage area "B" or bottling area "C", depending on the needs of the bottling machines at that time. Following this, the delivery trucks drive to loading areas "E" where they are serviced by fork trucks.

These trucks transfer unit loads from the palletizing area—where

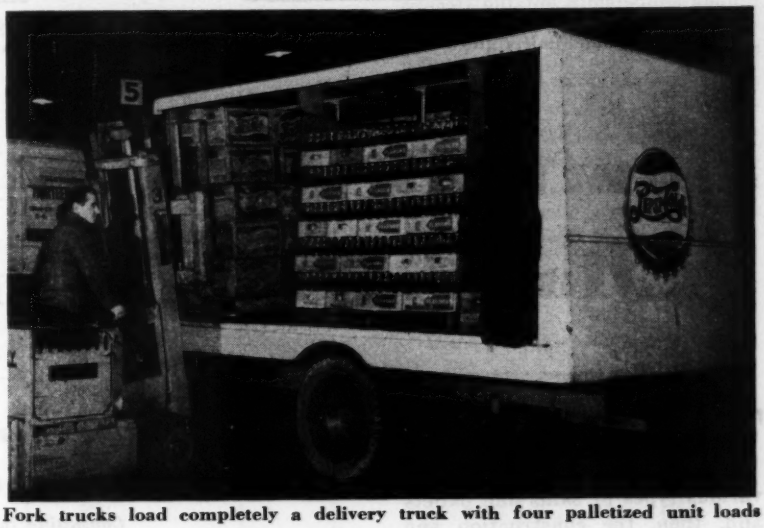
If output exceeds demand, the pallet loads of 50 cases go to storage area



PROBLEM: Bottle breakage and high man-hour expense

SOLUTION: Palletized load and fork truck MH system

Time 83%

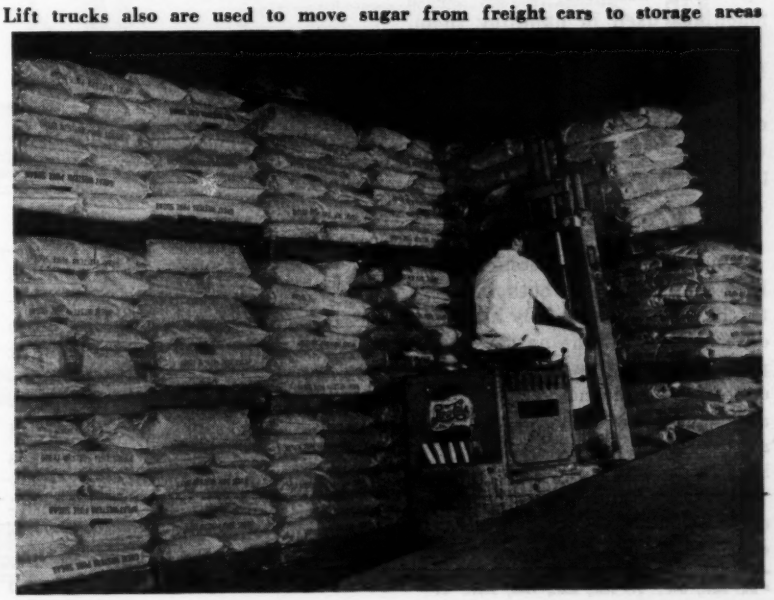


Fork trucks load completely a delivery truck with four palletized unit loads

cases of bottled goods from bottling machines are assembled into unit loads—to the full-bottle storage area "D" or to the loading area "E", depending again upon the requirements of the moment.

During slack loading periods, these trucks are used to build up palletized unit-load reserves in the full-bottle storage area "D" and are also used to unload and transfer palletized loads of sugar, syrup, citric acid and propylene glycol from incoming freight cars to the dry bulk storage area "F." The sugar alone amounts to over seven million lb per year.

Lift trucks also are used to move sugar from freight cars to storage areas



Less Time—More Service

After a delivery truck has been fully loaded the truck follows an outlined traffic pattern to the exit. Now, total elapsed time from entrance to exit does not exceed 30 min. As a result, the time formerly required to service 35 delivery trucks now is sufficient to handle 90 trucks. Besides the reduction in operating costs, this time saving permits a greater frequency of delivery calls which has been directly reflected in increased sales.•

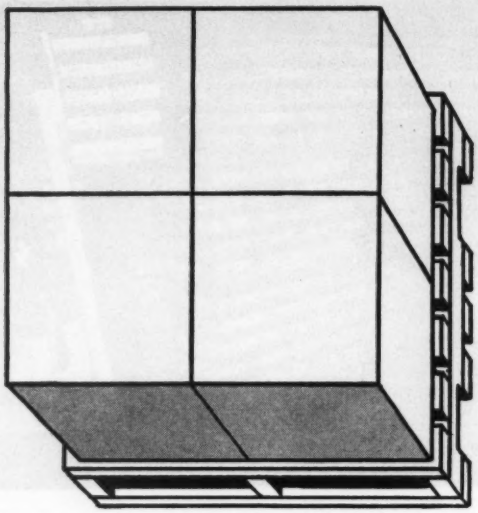


Fig. 1: Package-on-package piling makes loads unstable, unless glued or strapped

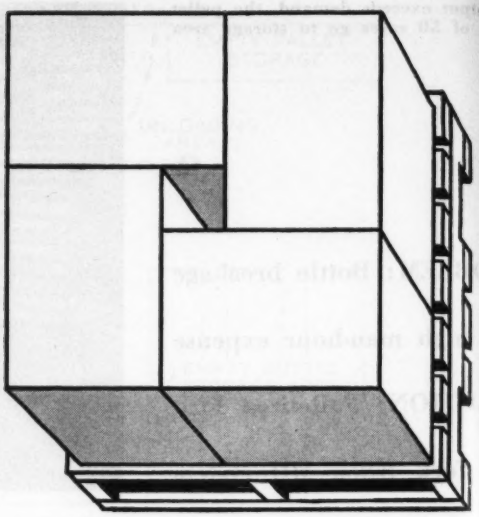


Fig. 2: Square pallets are available for pinwheel pattern and have the "usable chimney"

How to Develop an Integrated Materials Handling Plan

Equipment Selection

By D. O Haynes

Consulting Industrial Engineer

THE PREVIOUS articles of this Equipment Selection series[1] have covered, first, the various types of skids and pallets and, then, the construction and operating features of the basic machines used in handling them.

This article shows how this information, in conjunction with certain essential data we are about to discuss, is utilized in planning unit-load operations for a given plant or warehouse.

Study Nature of Products

Whether skids, pallets, or, rarely, a combination of both will give the best setup, is usually indicated quite clearly by the nature of the products. Note particularly their containers and the general characteristics of the operations, such as the feasibility of multi-stacking, rate of turnover, etc.

However, there are borderline cases. Consider, for instance, operations in an old building where floor loads are limited or ceiling heights are such that unit loads cannot be tiered advantageously two-high.

Consider Investment Angle

The choice of skids or pallets may depend primarily on the investment angle. A low pallet costs less initially than a sturdily built skid, but fork equipment is slightly more expensive than comparable platform types. Another point to consider is that the large wheels of skid jacks enable relatively easier rolling, so that, under proper conditions, it is possible to use manual instead of powered machines. It cannot be stressed too strongly that the decision should be reached only after thoughtful study of all the facts and figures. Once a company has committed itself to a given method, a switch to another—if not totally impractical—would prove to be very costly.

Interrelated Problems

Important as this initial decision is, it is but one of many to be made before a handling program can get rolling. Determining the right type of skid or pallet and the kind of equipment to handle it are interrelated problems. This becomes evident when we consider that the dimensions and weight of the optimum unit load may re-

[1] DA: Nov., Dec., '51; Jan., Mar., June, Sept., '52

quire machines which are impractical because of some physical limitations imposed by the buildings or elevators.

In actual practice, therefore, the two phases of the problem must be approached almost simultaneously. But, in the interest of clarity, it is best to treat them separately in order to study the factors which influence our thinking in regard to each.

Time and space will limit this discussion to the long-run type of packaged merchandise handling. Their principles are broad enough to cover many more complicated types of operations, and the procedures outlined to find the right size burden carrier to fit a given situation are applicable to practically any set of conditions.

List of Packages Handled

The first step is to make a list of all packages to be handled, arranged in the order of their *handling volume* importance. This may not be possible for a public warehouse with a large variety of package sizes. In such concerns there are usually a certain number of sizes which predominate and, since our plan is to be built around them, it is necessary to think only of them in making our decisions.

The required information for each of these volume leaders should be recorded in columnar form as follows:

1. Dimensions—length, width and height; 2. Weights—gross and net; 3. Crushability; 4. Height to which pileable in self-supporting tiers; 5. Remarks.

Complete Sets of Figures

Spaces should be provided to record for the ideal and two or three alternate size skids or pallets, the number of packages in each layer, the number of layers high, total number of packages in the unit load, total overall height and gross weight; the last two figures to include the skid or pallet.

In measuring containers the overall outside dimensions should be taken and a note made in "Remarks" as to whether the package can be stored as satisfactorily on the side or end. It is possible frequently to work out a better pattern if this can be done feasibly.

Cylindrical containers should be measured at their widest diam-

(*Please Turn to Page* 59)

Consider nature of packages, buildings and carriers in formulating unit load plans for your plant or warehouse

Fig. 3, top: Cross piling is a stable pattern
Fig 5, bottom: This is locked load pattern

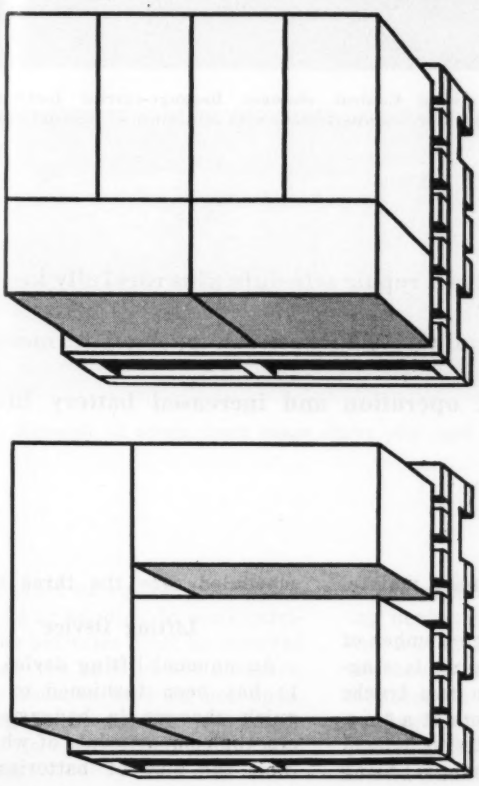
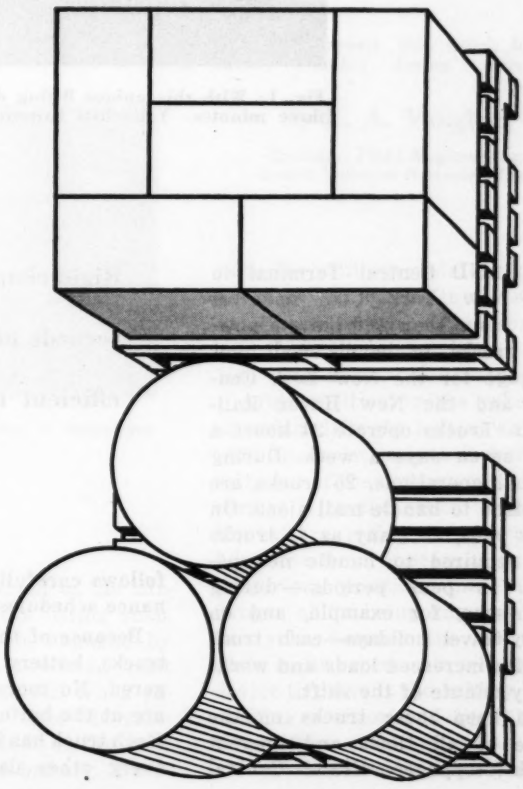


Fig. 4, top: This style has one cross division
Fig. 6, bottom: Drums require overhang



Battery Maintenance at G

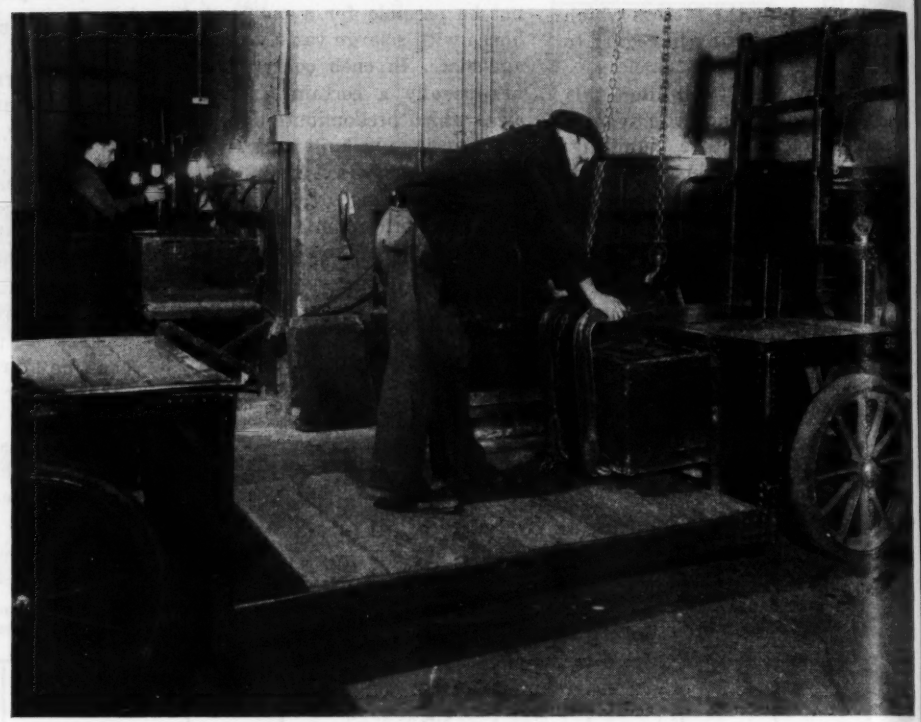


Fig. 1: With this unique lifting device Grand Central changes baggage-carrier batteries in three minutes. Yoke lifts batteries into their compartments with minimum of manual handling

Rigid charging and repair schedule plus carefully kept records on terminal's 225 batteries pays off in more efficient truck operation and increased battery life

GRAND Central Terminal in New York City operates more than 100 battery-powered trucks to handle mail and baggage for the New York Central and the New Haven Railroads. Trucks operate 24 hours a day, seven days a week. During normal operations, 25 trucks are required to handle mail alone. On week ends, as many as 44 trucks are required to handle newspapers. In peak periods — during Christmas, for example, and on heavy-travel holidays—each truck carries increased loads and works every minute of the shift.

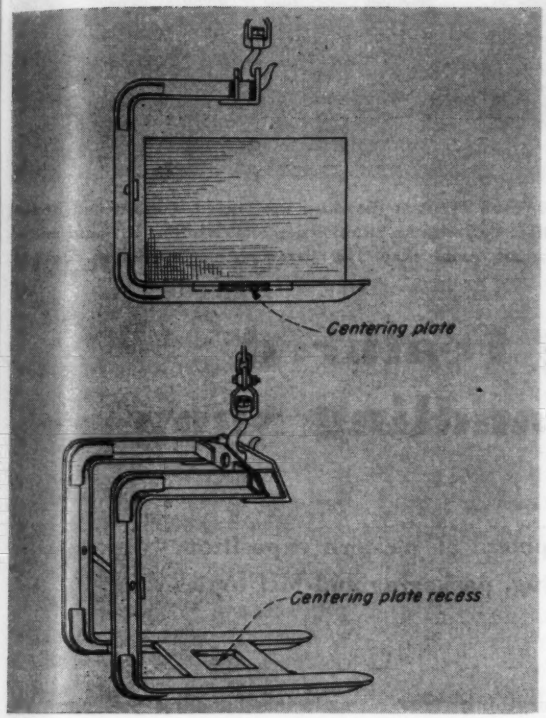
To keep these trucks on the move at all times and prevent work stoppages, Grand Central follows carefully planned maintenance schedules.

Because of the large number of trucks, battery changing is staggered. No more than two trucks are at the battery room at a time. Each truck has its battery changed every other day, changes being scheduled over the three shifts.

Lifting Device

An unusual lifting device (Fig. 1) has been fashioned to effect quick changes in baggage-carriers, the compartments of which so limit the size of batteries that

Grand Central



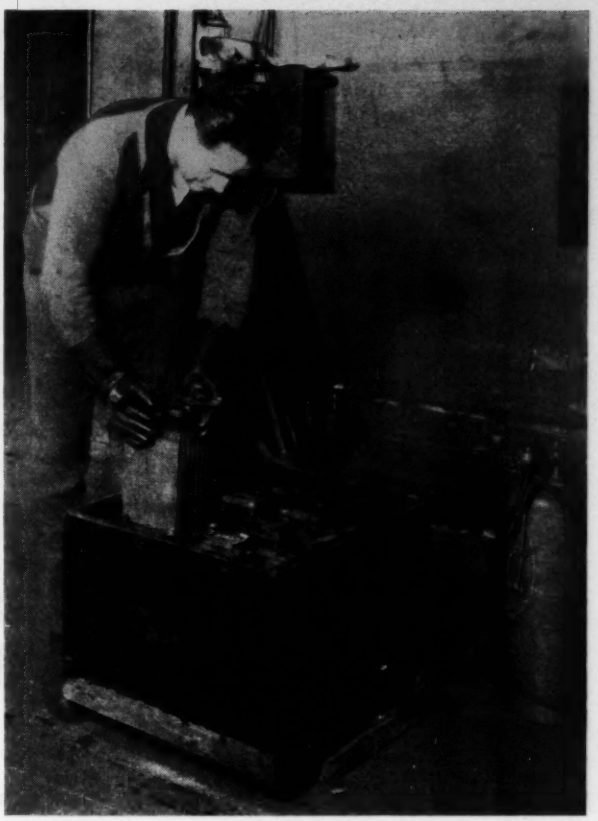


Fig. 3, above: Area in battery room is reserved for such repairs as broken covers, broken posts, damaged jars, etc.

Fig. 2, left: Note centering plate recess, into which battery plate fits, insuring battery stability during entire lift

Fig. 4: Example of severe truck usage shows why rigid program is important

By K. A. Vaughan

Manager, Field Engineering
Gould-National Batteries, Inc.

they cannot be equipped with lifting lugs or handles. In some carriers, the batteries must be removed through the ends of the compartments because tops do not open. Average time for changing batteries in any carrier is three minutes.

The pick-up element of the lifting device is a large lifting yoke, the top of which is engaged by the hook from an overhead hoist mounted on a monorail. When removing a battery from its compartment, the bottom of the yoke is slid in under the battery. A rectangular centering plate approximately 5x8x1 in. fits into a recess in a plate on the yoke when the yoke is in the proper lifting position (Fig. 2).

After positioning the yoke, the attendant lifts the battery slightly with the hoist, moves it horizontally out of the compartment, then carries it to the racks. Although the battery, riding the yoke parallel to the floor, appears to be in a precarious position, there is no danger of its being knocked from the yoke because the centering plate in its recess acts as a safety device to prevent the battery from shifting position and tipping the large lifting yoke.

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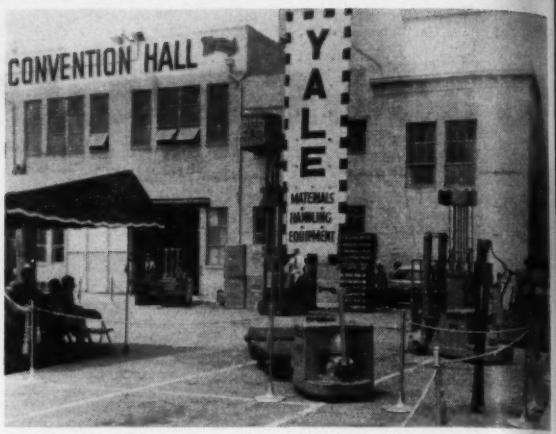
Partial floor view shows some of the 8,000 visitors who attended the Fourth Western Packaging and Materials Handling Exposition in Los Angeles, Cal., last month



Kick-off event at the show was staged by Yale and Towne Mfg. Co., with an outdoor demonstration of lift equipment. In all, more than 150 firms set up booths in the hall

Cost-Cutting Featured at Packaging-Handling Show

151 exhibitors display latest equipment at Western exposition. Panels and workshops cover packing, packaging and MH topics

PROFIT-MAKING, cost-cutting ideas and equipment were reviewed by 8,000 persons at the recent Fourth Western Packaging and Materials Handling Exposition. Held for the first time in Los Angeles, the three-day show ran concurrently with the Second Biennial Packaging and Materials Handling Institute.

The interest in the Exposition and Institute clearly illustrated an ever-growing Western market for materials handling manufacturers.

Profit-Making Ideas

Warehousemen, traffic managers, packing and packaging executives came to see the latest equipment and supplies displayed by 151 top local and national firms, and to attend an educational series of panels and workshops in which experts of the handling industry contributed their ideas for profit-making and cost-cutting.

Exhibitors, filling the Shrine Convention Hall to capacity, showed the newest in everything from wrapping papers and packaging machines to knee-action casters and heavy-duty lift trucks. Yale & Towne kicked off the event with an outdoor demonstration of its equipment, featuring the interchangeability of attachments for fork lifts.

Military Packaging

Ideas on military packaging and solving tough materials handling problems were presented in Institute sessions at the University of Southern California. An entire day was devoted to the subject, beginning with a morning panel on current problems in the Los Angeles area.

The day's meetings closed with a presentation of the U. S. Air Force's latest thinking on its packaging program by Lt. Col. Robert W. Johnson of Wright Patterson Air Force Base.

A second section of the program considered techniques for solving materials handling problems. The panel began with ideas on the selection of the right type of handling equipment, in which C. O. Burgin, Burgin Associates, Inc., San Francisco, correlated handling problems characteristics with suitable equipment.

A quantitative flow chart technique for locating machines and department to minimize handling in a job-lot shop was demonstrated by Louis de Villeneuve, manufacturing engineer, Lockheed Aircraft Corp.

MH Work Standards

"Occurrence" type studies to estimate the required number of materials handlers were illustrated by C. A. Bogenrief, chief industrial engineer, Grayson Controls Division, Robertshaw-Fulton Controls Co. He showed how to establish work standards on materials handling by ratio-relay.

Analyzing a handling problem with the time-lapse camera was the

By R. Raymond Kay

West Coast Editor
Distribution Age

Interest in individual exhibits hit a new high for the Western Exposition, according to all sponsoring agencies.

subject of a presentation by A. J. Rowe, assistant professor of industrial engineering, University of Southern California. He detailed the techniques and procedures used to analyze a multi-man handling problem with a special camera that uses two ft of film per min.

Problem Workshop

Featured part of the Institute was a group of popular workshops to which members attending the sessions brought specific problems for discussion by experts. R. H. Edgecumbe, chief industrial engineer, Virtue Brothers Manufacturing Co., presented a problem on the transition from mobile to conveyorized handling. Those concerned with floor conveyors and the movement of materials between widely separated work stations had an interesting discussion, with a variety of problems reviewed.

Another workshop devoted to problems which might be solved by an overhead crane or monorail system started with information on an integrated system for handling heavy, bulky items, by J. E. Owens, supervisor of plant engineering, Douglas Aircraft Co., Inc., El Segundo Division.

Case studies dealing with the intermittent handling of packaged materials over varied paths were the subject of a workshop led by Robert M. Braun, president, Robert H. Braun Co., who suggested a solution in the use of forked trucks for handling packaged goods. •

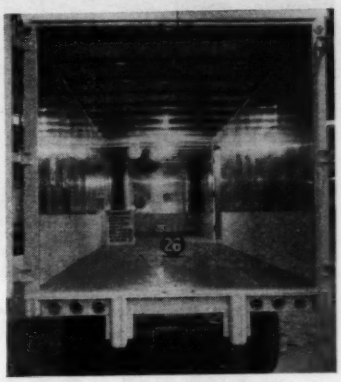
New Trailmobile EP Model Insures Greater Pay-Load

Maximum loading capacity, light weight and ease of repair feature exterior post design

TO MEET a wide-spread demand for outside post construction in the light-weight truck-trailer field, Trailmobile, Inc., has introduced its new EP (exterior post) model, designed to help truck operators offset rising operating costs by providing maximum ease of repair, largest possible interior loading capacity and light weight.

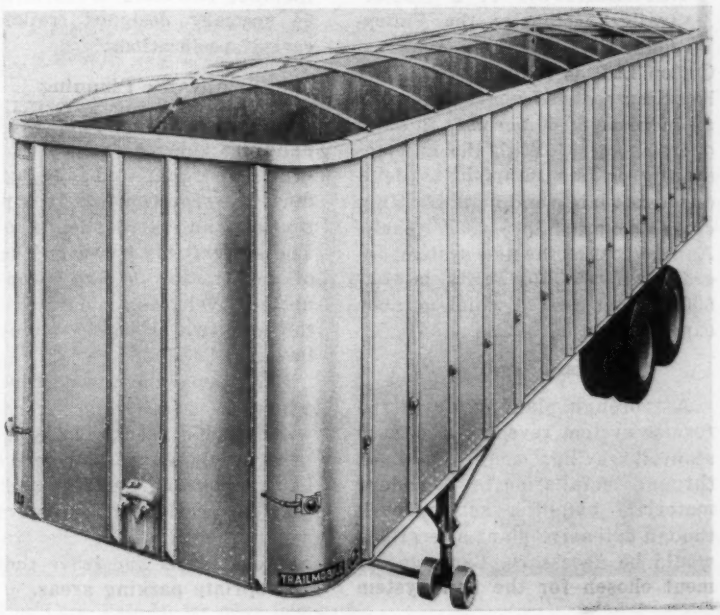
As the model's name implies, side-posts are placed on the outside of the side-wall panels while heavier gauge aluminum panels eliminate the need for horizontal corrugations to stiffen the panels against buckling between the posts.

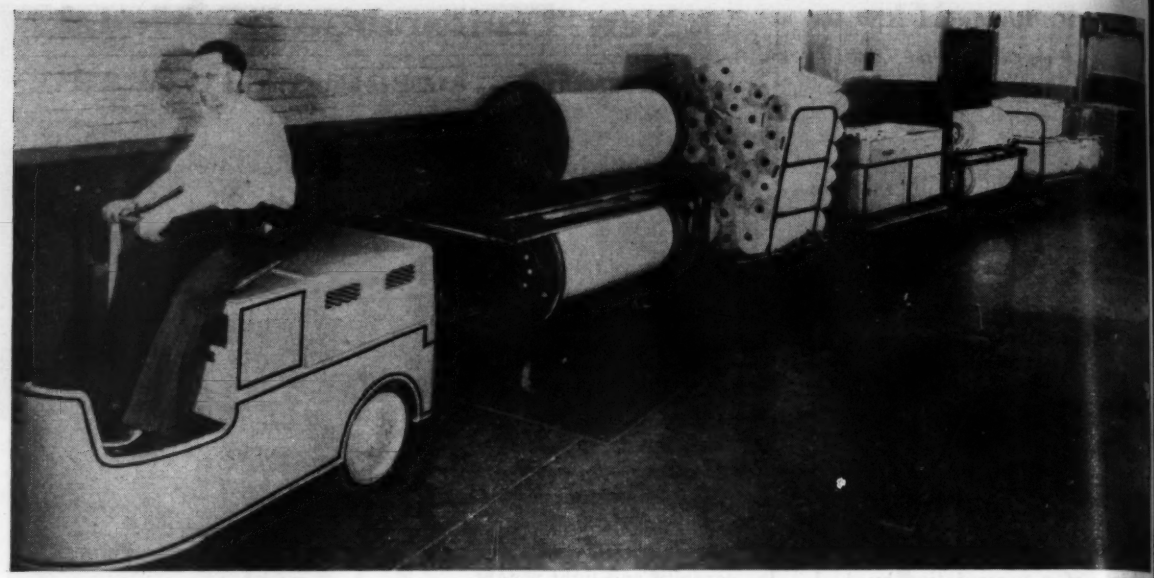
The model is available in lengths of 20 to 36 ft, with two ft increments, has an overall width of 96 in. and an inside width of 91½ in. With certain floor combinations, tandems under 8,000 lb will be possible,



EP design widens interior to 92 in.

permitting greater pay-loads with no sacrifice of strength. Single-axle, standard Trailmobile tandem and the new wide-spread tandem suspensions are available. Single axle model has 25,000-lb capacity, 52-in. loading height; tandem model, 36,000 lb capacity, 52¾-in. loading height. •





Note different trailer designs necessary to accommodate variety of products, raw material and equipment in this Canadian mil

Tractor-Trailer Installation Saves $25,500 per Year

Materials handling costs drop 37 per cent as textile mill boosts operating time 60 per cent

INSTALLATION of a tractor-trailer system at the Valleyfield, Que., plant of Montreal Cotton Ltd., is reducing materials handling costs 37 per cent despite an increase of 60 per cent in daily operating time. With the mill operating on one 10-hr shift, previous direct labor and hand trucking costs amounted to $40,000 yearly. Annual cost of the new system, operated on two 8-hr shifts, is $14,500—69 per cent of which is labor expenditure.

Plant Study

A thorough plant study of the former system revealed that substantial savings could be made through installation of a modern materials handling set-up, even though extensive plant alterations would be necessary. Basic equipment chosen for the new system included two electric tractors and 64 specially designed trailers of varied specifications.

Advance Planning

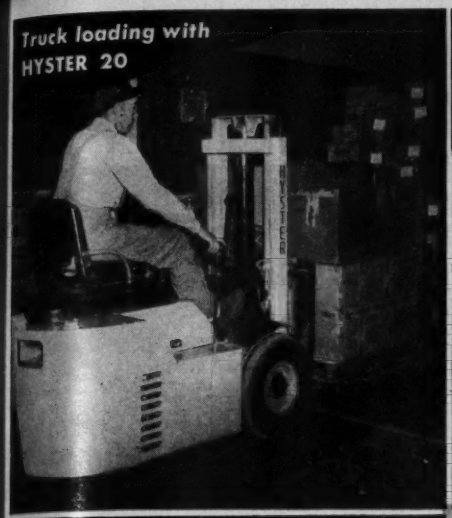
To aid in developing the new handling scheme, movement diagrams were prepared showing production requirements, proposed routings and personnel involved. The system was based on the use of one tractor on two ramp-connected levels, and the other tractor on two elevator-connected levels.

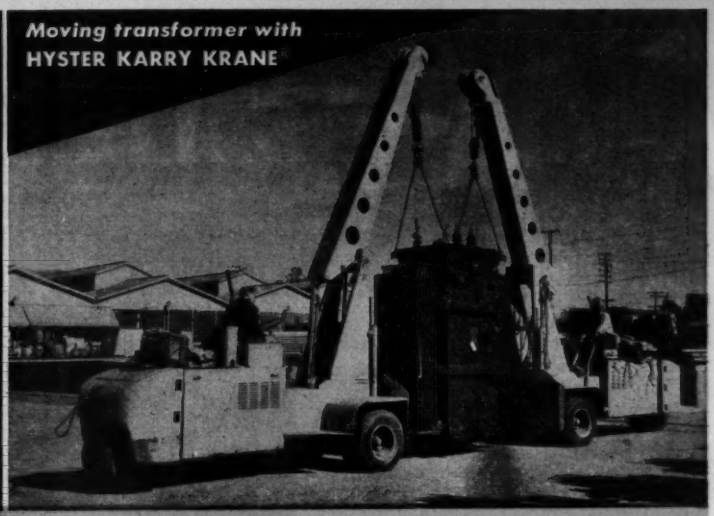
Each department was allocated a number of trailers in accordance with specific needs. These permanently assigned trailers were to be hauled between elevator and dispersing stations. The elevators would then transfer the trailers between levels and leave them in appropriate parking areas.

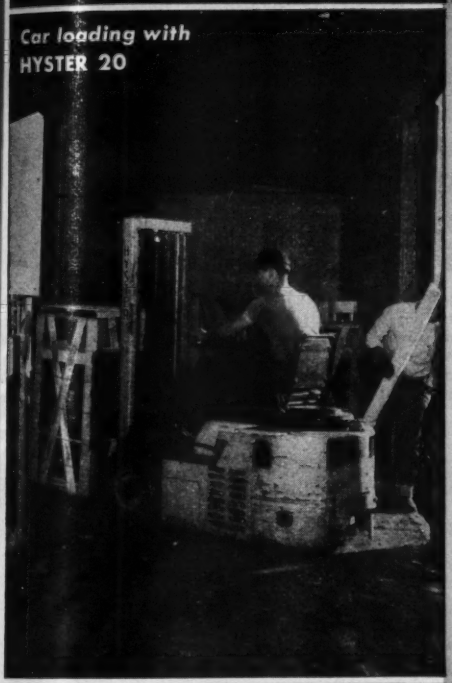
The tractors selected were standard units produced by Mercury Mfg. Co. Trailers, however, were custom designed by the POM Co. Designs had to be practical for hauling roving bobbins, warp spinning and filling bobbins, twister bobbins, spooler cheeses, binder cones and tubes, dye springs, section beams, loom beams, cloth in folds, rolls and bales, waste material, and a variety of other material and equipment.

Two-Year Amortization

Equipping and altering the plant, plus installation of the trailer-tractor system required an investment of $45,000. Considering the $25,500 saving in reduced materials handling costs, the total initial outlay for plant modernization and equipment will be amortized in less than two years. •







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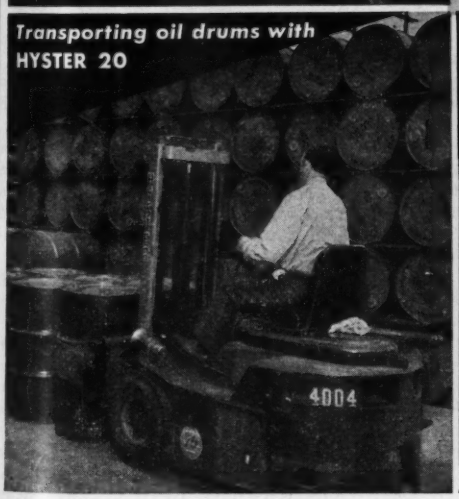

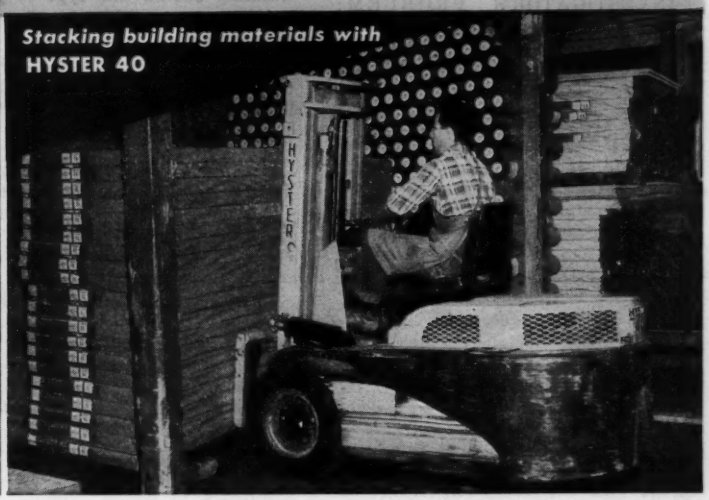

Circle No. 122 on Card, Page 51, for more information

JUDGING Accident Responsibility

(Continued from Page 25)

"I was driving along, at only 30 mph, on wet pavement, when a child ran out in front of me. I applied the brakes hard, but they grabbed and threw me violently to the left. The back end of my vehicle skidded past the front end, although I steered towards the direction of the skid, and I finally wound up on the wrong side of the road in the ditch.

"Those brakes were adjusted at the garage just three days ago. While all four tires skidded, one must still grab because it threw me into a side skid. Obviously something was wrong with them."

CASE No. 10

DRIVER'S STATEMENT: "While driving on the street, I started to turn a right corner. I have to start fairly wide to make the right turn into it. I gave an arm signal for right turn and started to turn at about 20 mph, when this other guy caused the accident by trying to pass me on the right side!

"The police arrested him for improper passing, so there's no question that the other driver caused the accident."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?.... or VICTIM?.....

CASE No. 12

DRIVER'S STATEMENT: "I'm driving along on a main street of the city, at 20 mph. Not much traffic. I am in the right lane, next to the parking lane. There is parallel parking along the curb. Suddenly this guy in a parked car opened his door just as I came along. I swerved and blew my horn, but the back of my vehicle hit his door and tore it off."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?.... or VICTIM?.....

CASE No. 14

DRIVER'S STATEMENT: "I'm following this big truck on a two-lane road. I pulled up about 10 ft behind him (he was crawling along about 20 mph on a 55-mph road). I started to ease out to see if the way was clear to pass, but this other car coming towards me like the wind, clipped my left front fender before I have a chance to get back. The slow moving truck obstructed my view, and this other car was going too fast."

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?.... or VICTIM?.....

Now that you have passed judgment on these cases, turn to Page 69 to see how you made out. Don't be disturbed if you can't give yourself a perfect score. Very few safety men can.

Lt. Cols. M. K. Mathewson, Fred Banks and C. R. Hammer and Major Joseph Hughes, all transportation office personnel attached to the San Francisco, Cal., Port of Embarkation, get a detailed explanation of the function of the P-I-E "yard donkey" from hostler Alfred A. Rodrigues. The hostling vehicle, developed by P-I-E, can spot and switch loaded or unloaded line haul trailers single handed. Because of its close couple construction and automatic fifth wheel, the driver does not have to leave the vehicle at any time.

INVESTIGATOR'S PROBLEM: Was our driver the CAUSE?.... or VICTIM?.....

Test Your Drivers

Having gained the fundamental thinking behind this type of judging accident responsibility, the fleet safety man is but on the threshold of a positive and practical means of reducing fleet accidents. The next step is to educate the driver to think and act along the same lines.

Needless to say, to suddenly spring this type of accident judgment on the driver would throw him into confusion and may result in bickering, resentment and griping. Today's cases will have to be judged as yesterday's—perhaps tomorrow's also.

However, at the very earliest opportunity, the drivers should be called together and told the facts: That with the national accident rate still climbing, with accident settlement costs rising, with accident insurance premiums on the increase, with business competition becoming increasingly stiffer, and with profits gradually becoming smaller, it becomes imperative to adopt a more realistic approach to judging accident responsibility.

No Amateur Standards

The men should be told that they are professional drivers of the highest caliber and, therefore, it is proper to scrap the amateur standards of judging accident responsibility employed only by part-time, weekend passenger car drivers.

The few accident cases cited in this article then could be given each driver as a written test. To save time the answers could be supplied to the group after the test questions have been given, and each driver asked to rate himself as to his knowledge and understanding of accident responsibility.

Such a meeting could be a howling success if a question and answer period is provided.

Of course, just one meeting devoted to the explanation of the new principle of judging accident responsibility will not be sufficient to get the desired results. Several successive meetings should be devoted to the study of accident situations. Visual aids should be used — especially

(*Please Turn to Page* 40)

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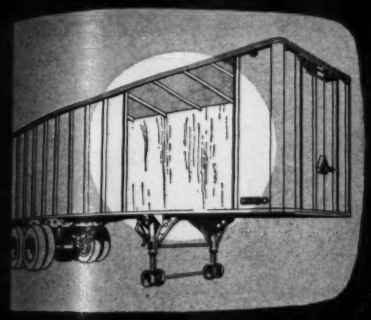

xclusive features make it the asiest-to-repair of exterior-post ans: Platform requires no sup-ort while part of panels are re-oved.

AT LAST here's a van that utilizes the light weight aluminum without sacrificing strength, and at the same time offers new economy of time and money when accident-damaged side panels must be replaced or repaired. The same basic framework that makes all Dorsey models recognized for ruggedness now supports the new Dorsey Aluminum Fleetmaster. The Fleetmaster needs no propping-up when sides are repaired. If you're interested in a van that will dependably haul more payload, it will pay you to get the facts on this new member of America's most dependable trailer line.

The Fleetmaster

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JUDGING Accident Responsibility

(Continued from Page 38)

diagrams on a blackboard with movable vehicles, road intersections, traffic lights, and so on.

Use "Kangaroo Court" Trials

One of the most effective ways I've found to get drivers to grasp the new principles is the use of the so-called kangaroo court. Real or typical accident situations can be used. A panel of drivers—or drivers, supervisors and, perhaps, a union representative — should do the judging. However, when the accident has been explained, the judges should aim to determine if it was preventable or non-preventable—and NOT who hit whom or who should get the blame.

This procedure is being employed by more and more fleets. It works well when used to review every accident. However, I use a refinement and improvement that has dramatic effect. We let our driver describe all conditions previous to, during, and after the accident. We listen sympathetically. Our attitudes are calm, kindly and friendly.

When all apparent discussion of the case is over, we slip this question in gently: "If you found yourself in this same situation again, what would you do to avoid the accident?"

Won't Happen Again

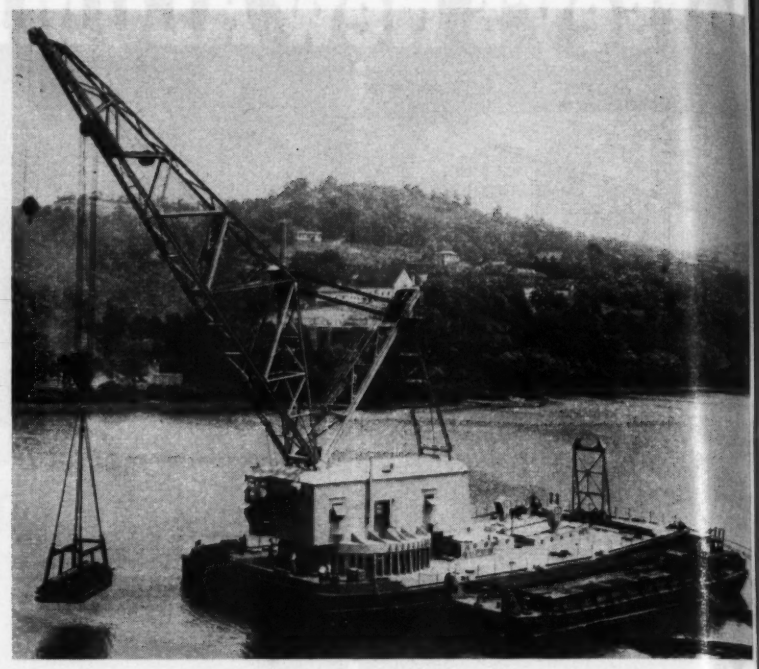
Then a most amazing thing happens. The driver will tell you that the next time, by golly, he won't let another guy get him into a similar situation. No, sir. He'll let him have the right of way, or he'll stay away from him (keep the proper distance), or he'll keep his speed down even if he'll be behind in his schedule, or he will do this or that. He even might go to the blackboard *and show how he could have avoided the accident!*

Very often his face gets very red when he realizes what he has done —admitted that he contributed to the accident. If he doesn't catch on immediately, we ask him kindly why he didn't do that kind of maneuvering to avoid the present accident.

But then we don't ride him. We drop the subject and go on to the next case or adjourn the court. We let the fellow go on his way thinking over what he told us. Experience shows that he will think about it for a long time to come.

Certainly, this is far better than trying to ram the very same words down his throat—while he's thinking up counter arguments, excuses and alibis. His own admission that the accident was avoidable is far more effective than our say so.

Ofttimes having another driver explain the means of avoiding the accident will get better and more convincing results than the same treatment from "some theoretical driver" —as safety men, supervisors or other non-full-time drivers are frequently regarded.



One of seven 100-ton floating cranes built for the Army Transportation Corps is shown undergoing tests at the Pittsburgh shipyard of the maker, Dravo Corp. A similar crane, one of 43 used by the armed forces in WW II, was towed across the Atlantic to break an unloading bottleneck at Cherbourg, France. Diesel electric generators supply power for cranes. Hull contains quarters for crew

Once the drivers know that, in the future, their accidents and safety records will be based and judged in the light of these standards, they'll surely adapt themselves to the new rules. Appeal to their professional pride. It may be hard to teach the old boys new tricks, but they will learn if these standards are rigidly adhered to.

Protective Attitude Illogical

Frankly, the greatest problem will not be with the driver. Given a set of rules, he will adjust himself easily enough. The greatest problem will be for the driver supervisor and, perhaps, the safety director to adjust their thinking.

The driver supervisor, for example, being closer to a particular group of drivers, has the tendency to develop a protective attitude over them. While, generally, he knows their faults, and lets them know that he does, he is inclined, often unconsciously, to take their sides when they are in trouble. In so doing, he defeats the very objective for which he is working.

Protection of our possessions — whether personal property, or members of our own or the driver family —is one of the primitive instincts which man and animal alike have carried with them throughout the ages. It is an admirable instinct—if tempered with logic.

When an accident occurs, most of us instinctively try to protect ourselves, and those under our supervision, and cast all the blame on the other fellow; logic notwithstanding.

Teach Self Correction

Fleet safety men and driver supervisors can do a better job of protection—protection of job and future —if they not only will teach their drivers defensive driving techniques but, also, an honest and self-corrective attitude toward accident responsibility. The long view of the ultimate benefits of this practice—for the driver, supervisor, fleet operator, and the company — must be taken to achieve best results.

Typical instances of such misguided protective instinct by a driver supervisor follow:

"In one case, a truck stopped behind another vehicle on a steep hill

(*Please Turn to Page* 42)

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JUDGING Accident Responsibility

(Continued from Page 40)

because of a traffic light. The lead vehicle, in starting up, rolled back into our 'hero,' damaging the front end of his vehicle. This driver and his supervisor were equal in their sincerity in blaming the accident on the 'carelessness of the other driver.'

"Investigaton actually revealed that our truck driver had pulled up and stopped within four or five feet of the other vehicle on a steep hill—not only inviting disaster but denying the precious necessary time and distance to give a warning signal, should the other vehicle start to roll back.

"Less than one month later, another driver from this same location chanced to stop on a similar hill. On this occasion, the 'other guy' pulled up behind our vehicle and stopped 'right under my tailgate'—according to our driver's report of the accident. In starting up, our vehicle rolled back 'just a little' damaging the radiator grille of the other vehicle.

"This time, our driver and his supervisor sincerely contended that the accident was caused by carelessness on the part of the individual who had stopped behind us, because 'he had followed too closely!'"

This $7 million combination passenger-cargo marine terminal for the Matson Navigation Co. is being built by the Wilmington (Cal.) District Board of Harbor Commissioners. The unit will have a 46-acre parking area for autos, a landing field for helicopters, overhead ramps and electric stairways. The wharf will be 1,649 ft long; the transit shed for the cargo will be 1,208 by 200 ft

Product of Ignorance

When I first came across this type of emotional, irrational and immature mentality, I decided it was unusual—a product of ignorance. As my experience in fleet safety grew, and as my travels carried me to the various parts of the world, I have altered my opinion but slightly. It is not unusual; it still is a product of ignorance.

The more I travel, the more I study, investigate and discuss accidents with safety men, the more I understand why the accident rate among professional drivers—as low as it is when compared to non-professional drivers—still is considerably higher than it should be.

As we review the "foregoing" incident in the light of cold logic, we can see that the supervisor was trying to protect his driver from being blamed for both accidents. Actually, he was doing more harm than good. He was instilling in the driver's mind several conditions:

1. Selling him that he was the victim intead of a contributing cause to the accident.
2. Encouraging the possibility of causing the same type of accident to occur in the future.
3. Establishing a precedent for other drivers in the fleet.
4. Encouraging a dual standard of interpreting and reporting accidents.
5. Encouraging one-sided defensive argument. Driver should be taught to think, "How did I contribute to this accident?"
6. Instilling a conviction in the driver that the supervisor or safety department will fight his accident battles.

All of these points have a bad effect on that fundamental principle of safe driving—Good Attitude. This only makes the supervisor's problems worse. Moreover, he also was making it difficult for himself to reduce the fleet accident rate.

If the driver, in the case cited, was taught professional defensive driving techniques, then his accidents were judged by non-professional standards.

Let us not kid ourselves. An accident-producing situation is wrong whether the driver responsible is on our side or the other side. The driver relationship, the day of the week, the time of the year or the phase of the moon does not alter it.

Legal Attitude is Wrong

Very often the fleet operator also acquires the driver supervisor's protective attitude — especially in the smaller fleets, where he may have several functions; that of driver supervisor, trainer, personnel manager, and safety director.

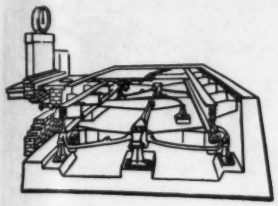
However, more frequently, he is inclined to adopt a legal attitude of judging whether his driver or the other fellow was at fault in an accident. He is closer to top management, and has to play a more important part in accident litigations and insurance adjustments than the driver supervisor. Thus, it may be more difficult for him to shed the "It's not our driver's fault" attitude.

My experience prompts me to urge fleet operators to let the Legal Department or the company's lawyers handle accident cases with legal techniques. It's up to them to split hairs and argue the cases according to established legal practice and precedent. The exception is, of course, if the fleet operator is called for legal testimony; there he should stick to the bare facts.

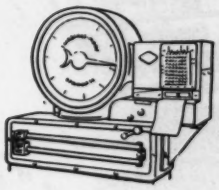
For effective accident reduction, and successful driver education on how they can avoid being involved as "contributors," two completely independent investigations, and two separate sets of reports, should be made out for every accident case. If you must make out both, give the "whodunits" to the lawyers.

Naturally, both driver supervisor and fleet operator have a common problem. Also, management expects that they will function as a harmonious team for the good of the fleet family. Yours will be a happier fleet family when all will try to live up to the highest driving standards; based not on the emotional instinct but on logic—the same logic that inspired the defensive driving techniques. •

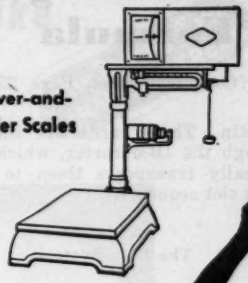
(Case Answers on Page 69)



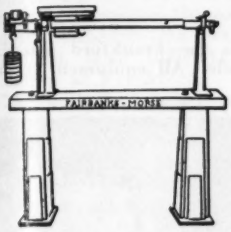
Truck Scales



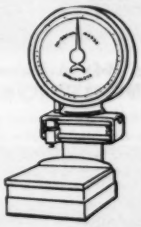
Printomatic Dial Scales



Over-and-Under Scales



Type Registering Beam Scales



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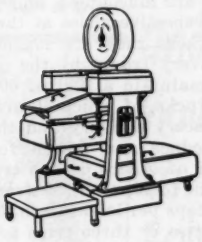
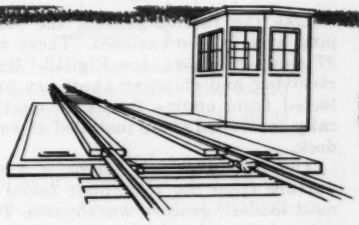
Counting Scales

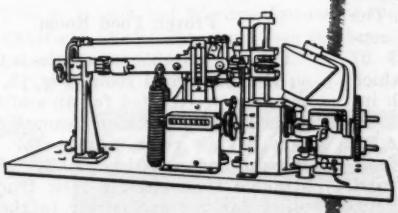


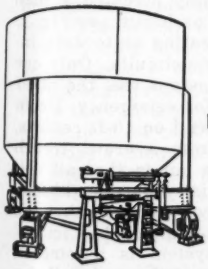
Weigh Can Scales



Railroad Track Scales

Belt Conveyor Scales





Hopper Scales

Fairbanks, Morse & Co., 600 South Michigan Avenue, Chicago 5, Illinois

. . . Handling Formula

(Continued from Page 22)

Bulletin. These cards are then put through the IBM sorter, which automatically transposes them to warehouse slot sequence.

The Slot System

Another IBM machine prints all the items in slot formation for assembly purposes consisting of size, description, original code number, ceiling price, unit cost and extension, Fig 5. This one sheet gives the assembly warehouseman all the information he needs.

It also serves as the delivery driver's record and the grocer's invoice. The tear sheet attached to the order duplicates original codes and grocer's cost and is kept at the Frankford office as a permanent record. This system eliminates the costly process of carbon copies for office use.

Order assembly in the warehouse is accomplished by a fleet of 20 electric three-speed tractors pulling in train fashion two, three or more four-wheel platform trucks, Fig 9. One man assembles the entire order. In the case of small shipments, he may complete as many as three orders in one sweep through the assembly area.

Trailers containing the completed orders are uncoupled and placed in their respective aisles at the shipping dock where they are loaded directly on delivery trucks by the drivers.

We maintain a fleet of 60 straight-body trucks, of which 30 are used for dry grocery delivery and the balance for produce and frozen foods. The number of orders on one truck range from one to 20, with the average being eight stops per load. Each driver completes two or three trips a day, with the most distant point of delivery being 35 miles.

27 Shipping Doors

Like the receiving area, the shipping area is also enclosed. There are 27 shipping doors, see Fig 12. Both receiving and shipping sheds are protected from engine fumes by electrically controlled vents installed at each dock.

The 19-ft stacking height is a departure from the 16-ft limit found in most modern grocery warehouses. The extra height involved an added construction cost of approximately $ .07 per ft, or a total of $63,000, which we daily prove justifiable through increased vertical storage space.

The 11½-ft aisles in the order assembly area also are a deviation from the 6-ft aisles recommended by most grocery engineers. We were certain, because of our mechanical order assembly, the narrow aisles would create bottlenecks. Warehousemen on an incentive basis will not wait for the man in front to pick his item. With the wider aisles, men can pass freely, even when fork trucks are working the racks, as seen in Fig 10.

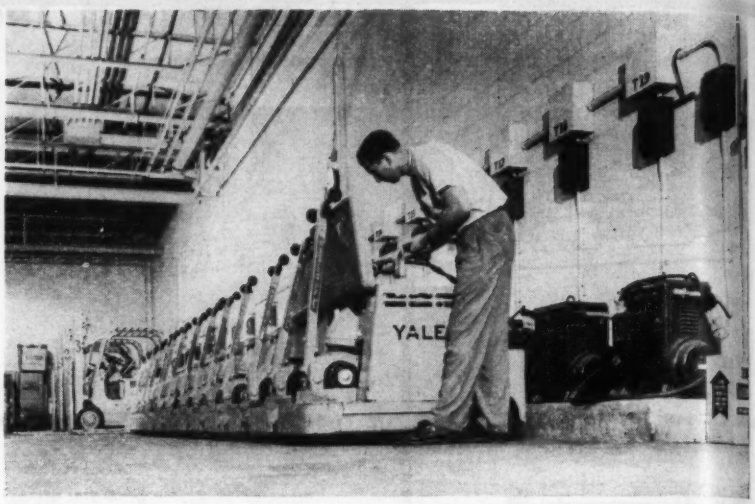


Fig. 14: A battery of 19 electric chargers keeps the Frankford materials handling fleet in operation, following a set schedule. All equipment is Yale

Fig. 13: Straddle type fork truck is on order for use in freezer room

Fig. 15: Incoming rail orders are palletized and moved to assembly

Actual clear warehouse space totals 220,000 sq ft. The remaining 80,000 ft is devoted to office, rest rooms, shipping and receiving docks and rail sheds.

Clear space is divided into five sections—60,000 sq ft in the dry grocery order assembly area, 120,000 sq ft of reserve space, 20,000 feet for fruit and produce, 8,000 sq ft of refrigerated rooms and 12,000 sq ft in the completed order section.

Frozen Food Room

The new warehouse includes a 5,000-sq ft frozen food room, Fig 13, with the floor pre-treated for an additional 3,000 sq ft if expansion becomes necessary. This room allows for 16-ft stacking of palletized loads, with a straddle type electric fork truck on order for use exclusively in the cold box. Company-designed push trucks with tilt-type shelving are used for assembling frozen food orders.

Of cinder block construction, the room features 8-in. rock cork insulation, and a 2-in. plaster surface. Specially insulated 5 x 9-ft doors, Fig 11, are large enough to allow entrance of the biggest fork truck, yet light enough to be handled easily by one man.

After learning of costly frost-heave accidents in similar floor treatment construction, we cast about in search of some arrangement which would insure against such loss. Hot oil and steam radiant heating were considered, but we finally accepted a plan advanced by our architect, see Fig. 2.

Two electric heating units were installed on separate circuits. Only one of them is in constant use, the other being held back for emergency. Drain pipes, 6-in. open end on 10-ft centers, were extended from a crawl trench alongside the box out to the rail siding. If the electric system should fail, heat could be forced manually through the pipes to defrost under floor ice.

The electric system is automatic, being actuated by a thermal bulb lo-

cated under the floor. When the floor temperature reaches 42 deg F the system cuts in—and cuts out again when the mercury goes up to 48 deg.

Incentive Bonus

We feel that one of our operation's strongest points is the incentive bonus system. It gives the worker a healthy feeling of security and at the same time prompts him to take the road of highest productivity.

Order men and truck drivers are paid on a dollar volume scale, rather than by tonnage or piece rate. The men receive wages in direct proportion to the actual dollars and cents value of the goods they move each week.

This system provides an automatic cost-of-living adjustment, up or down, since food prices serve as a fairly accurate barometer to the cost-of-living index. Although the warehouse is unionized, labor difficulty is almost unknown at Frankford.

The outlook is good in our new building. Dry grocery volume is expected to increase substantially since added space and an advanced handling scheme permit us to give member stores more comprehensive service. Within six weeks in the new building, produce business doubled and frozen food volume increased almost as rapidly.

Plans are in the mill for a fresh and frozen meat service to member stores. Lack of adequate cold space prohibited such service in former years.

Tonnage Going Up

According to most recent figures, Frankford handles 165,000 tons of dry groceries a year, 10,500 tons of frozen foods, and 36,400 tons of produce; for a total of 211,900 tons. Early indications in the new building point to a sizeable increase on all counts next year.

The new building and revised system have eliminated drawbacks which were limiting service in the old building—a foundation that would permit no vertical expansion, increased cost of elevator operation, increased handling costs, and rapidly multiplying physical bottlenecks.

While there were many serious problems with which to contend, long hours of pre-planning, months ahead of the move, were rewarded. Careful advance scheduling enabled us to make the complete transition over one weekend. The initial delivery from the new building was made on the first day of the new week.

Although progress to date has been more than satisfactory, we are aware of the need for continued improvement in today's competitive economy. We at Frankford are determined to extend the search for those improvements, until our operation is considered one of the finest in its field. •

(Resume Reading on Page 23)

Circle No. 124 on Card, Page 51, for more information

Appliance Movers Like
Escort
HAND TRUCKS

The Truck with the CRAWLER TREAD

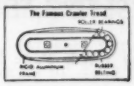
CRAWLS on Roller Bearings up and down steps

Everybody likes this
APPLIANCE TRUCK!
The ideal truck for every purpose! No lifting . . . no fatigue . . . carries a full load safely up and down stairs and crawls over obstructions. Your men will appreciate the Escort truck.

Ideal For Handling:
- Refrigerators
- Water Heaters
- Gas and Electric Ranges
- Music Machines
- Any appliance

Escort CRAWLER HAND TRUCKS

Catalog on request



STEVENS APPLIANCE TRUCK CO.
Norton Road Augusta, Ga. P. O. Box 897

DISTRIBUTION DILEMMAS...

and how to solve them!

When you call on Consolidated Freightways to handle your distribution in the West, you scare away the haunting ghosts of red tape and delay. You banish the worries of divided responsibility that result from dealing with many separate warehouse companies.

CF offers "one-company" *service and responsibility:* POOL CAR DISTRIBUTION, LOCAL CARTAGE, WAREHOUSING, PACKING and CRATING in 53 principal Western distribution centers. And unexcelled MOTOR FREIGHT SERVICE to more than 900 key cities and towns from the Great Lakes to the Pacific Coast.

Call your nearest Consolidated agency, or write for further information.

CONSOLIDATED FREIGHTWAYS
GENERAL OFFICES: PORTLAND 8, OREGON

Circle No. 125 on Card, Page 51, for more information

DA NEW Products

FOR FURTHER INFORMATION USE READERS' SERVICE

Warehouse Truck

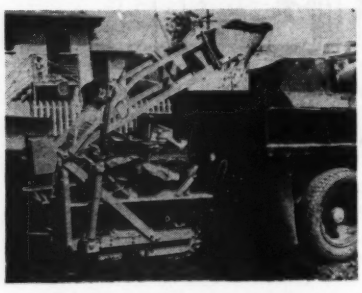
Palmer-Shile has produced a new heavy duty, rubber-tired warehouse truck. It is 54 in. long by 28 in. wide and 42 in. high at handle. The platform top is 14 in.

off the floor. Four roller bearing, rubber-tired wheels are used, two rigid and two swivel.

Circle 11 on Service Card, Page 52

High-Lift Bucket

A new high-lift hydraulic operated front-end bucket designed for the long track Agricat crawler-type tractor has been marketed by Earl H. Pence & Co., Inc. With a



5-cu ft capacity, it is powered by a Vickers 1000-lb psi pump. It lifts 72 in. from ground level and can be lowered 4 in. below track level.

Circle 12 on Service Card, Page 52

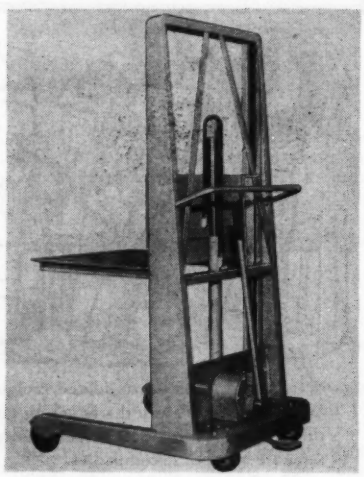
All-Steel Drawer Units

Standard Pressed Steel Co. has developed welded, all-steel drawer units which, bolted together in scores of combinations, can be tailored to almost any shop or office space. The drawers are designed to be used one on top of the other in tiers of from two to five or more.

Circle 13 on Service Card, Page 52

Manually Operated Lift

A 1000-lb capacity manually operated and propelled hydraulic lift

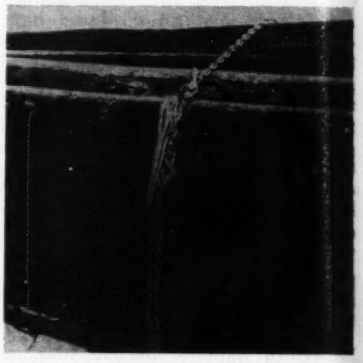


is announced by Century Products Co. The lift weighs only 150 lb and will raise a 1000-lb load from floor level to a height of 4 ft or any intermediate position. The 23 by 24-in. platform is elevated by a two-cylinder double acting reciprocating pump containing only three moving parts.

Circle 14 on Service Card, Page 52

Improved Loadbinder

The Institute of Inventive Research has announced a new type loadbinder which utilizes a sys-



tem of cams to reduce physical pull necessary to bind a load. It does not slack off when locked tight, and cheater bars are frequently unnecessary. Cams also reduce kick when the binder is released.

Circle 15 on Service Card, Page 52

Hydraulic Dock Ramp

A hydraulic powered dock ramp for freight car use has been de-

veloped by Beacon Machinery, Inc. It was designed to meet specifications prohibiting extrusions above the level of the dock or beyond the edge of the dock during a switch-

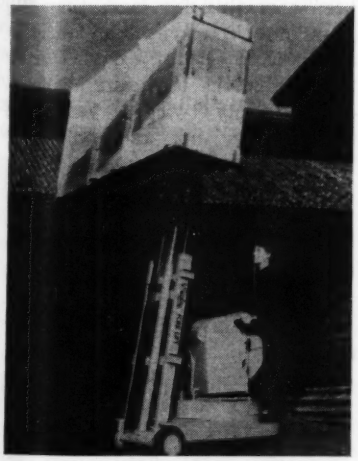
CARD . . . .

ing operation. The Beacon unit is set within a pit 6 ft, 10 in. long by 2 ft, 8½ in. deep with two widths, 42 in and 5 ft. In retracted position the ramp is flush with top and front edges of the dock. An auxiliary ramp moves out from under the main ramp for a total horizontal travel of 48 in., and the ramp moves up and down a total of 24 in.

Circle 16 on Service Card, Page 52

Tight Radius Turns

Hambro Machinery Division has introduced a new Wrigley Model

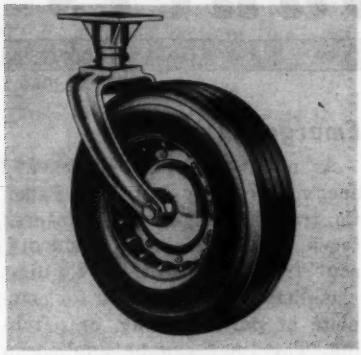


350 fork lift truck. The ½-ton model is designed to operate in confined areas, gangways or upper floors, turning in a remarkably tight radius. Fork height closed is 5 ft, 8 in.; open 9 ft, 6 in. Length less forks is 4 ft, 8 in., and width, 2 ft, 10 in. The unit has a 55-in. turning radius without forks and 80-in. radius with forks.

Circle 17 on Service Card, Page 52

Rubber-Tired Casters

A new series of rubber-tired casters with from 6 to 16-in. wheel size have been produced by Goddeyne Wheel Products Co. Available in both swivel and rigid types, the new casters are of welded con-



struction and equipped with semi-pneumatic or solid rubber tires. Casters are load-rated from 90 to 625 lb, depending on size.

Circle 18 on Service Card, Page 52

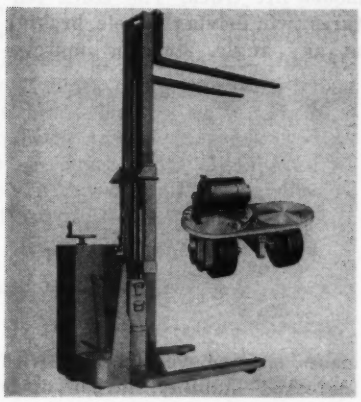
Folding Stock Rack

A folding type stock rack with no loose or detached parts has been announced by Equipment Manufacturing, Inc. It is constructed of welded square steel tubing.

Circle 19 on Service Card, Page 52

Three-Point Suspension

A new electric industrial truck, the Transveyor, introduced by Automatic Transportation Co., is a compact stacker designed for use where limited space is a factor. It handles 2500-lb, 48-in. loads, is available in 68- and 83-in. mast heights, provides 102½ or

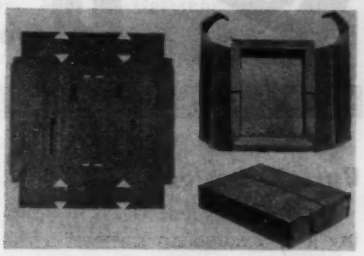


132½ in. of telescopic lift, and features a front wheel design which gives three-point suspension.

Circle 20 on Service Card, Page 52

No-Sealing Box

Shelton Mfg. Co., Inc., has introduced a mailing box which offers four-way protection and extra cushioning. Use of tubular



walls have been given additional strength by the wrapping of still another layer of corrugation when closed. Made of double-face corrugated, the box features a series of scores and cut-outs which allow it to fold quickly and securely.

Circle 21 on Service Card, Page 52

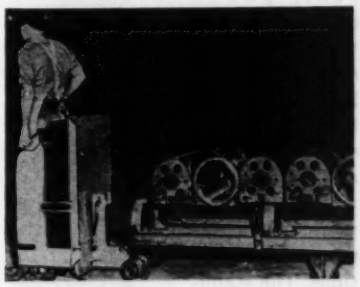
Adjusting Concrete Insert

A new type fully adjustable insert for concrete has been marketed by Super-Grip Anchor Bolt Co., Inc. The combination of an elongated hole in the face of the insert and off-set hole in the nut makes it possible to put the nut on the bolt before placing in the insert and then to adjust it to any point of the compass.

Circle 22 on Service Card, Page 52

Rider-Type Tractor

A new rider-type tractor for handling semi-live skid loads is in production at Raymond Corp.



Capable of handling up to 2000 lb, the tractor will travel up to 5 mph loaded and 4½ mph empty. Designed especially for riding, the tractor is extremely compact and light in weight, has low battery capacity requirements and features an offset drive wheel with 200 deg turning arc.

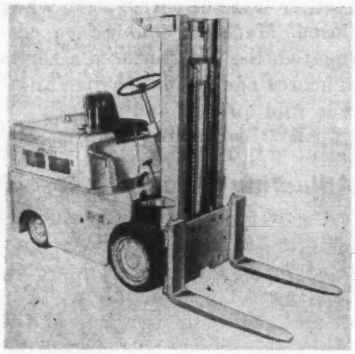
Circle 23 on Service Card, Page 52

DA NEW Products

Continued from previous page

Upright Design

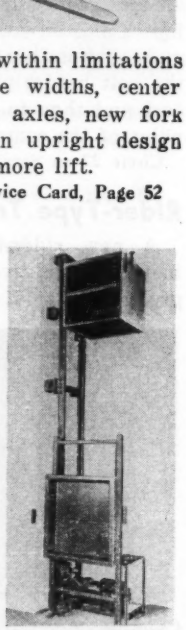
Clark Equipment Co. is producing a new model fork truck in the 6000-7000-lb range. Gas or electric powered, the Utilitruc has a turning radius well within limitations of practical aisle widths, center pivoted steering axles, new fork mounting, and an upright design which provides more lift.



Circle 24 on Service Card, Page 52

Dumbwaiter

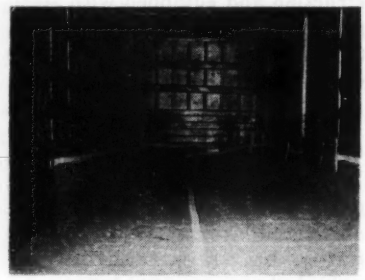
A new, low cost, power driven dumbwaiter has been announced by Sage Equipment Co. The unit is self contained and is available with fully automatic push button control stations. The standard cab is 3 ft by 3 ft by 4 ft and is made to meet specific requirements. A choice of two counterbalanced doors is available. The completely enclosed drive unit is equipped with a high starting torque gear-in-head motor, built-in magnetic brake and grooved winding drum.



Circle 25 on Service Card, Page 52

Emergency Liner

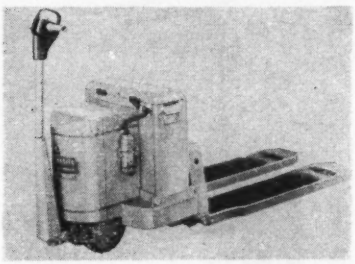
A new reinforced emergency liner marketed by J. J. Lipp Paper Co. transforms gouged, splintered truck interiors into a smooth, scuff-free finish suitable for first class handling. It is used for complete or partial lining, or patching. The liner can be applied in minutes with pressure sensitive tape or staples, and prevents cargo damage due to highway splatter, seepage, or damage from water, oil or grease.



Circle 26 on Service Card, Page 52

Pallet Model Lift

Lift Trucks Inc. has manufactured a new hydro-lectric pallet model lift truck. The truck features twin driving wheels, braking at any angle, steering improvements, shorter overall length with increased stability, larger drive and trail wheels, and a completely sealed differential gear transmission.



Circle 27 on Service Card, Page 52

Heavy Duty Jack

A 20-ton heavy duty hydraulic jack has been marketed by Auto Specialties Mfg. Co. A sling-type carrying handle has been incorporated, which facilitates carrying the 45-lb unit and assures normal upright handling and retraction of the ram when not in use.

Circle 28 on Service Card, Page 52

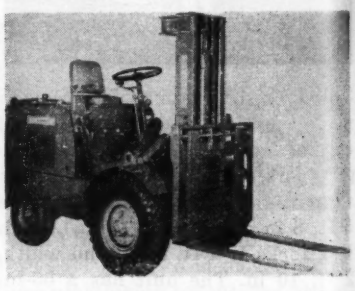
New Synthetic Lubricant

Six gasoline powered fork lift trucks, formerly using two quarts of petroleum motor oil a day, have been operating for more than 2½ years on Ucon synthetic lubricant at less than ½ pint a day. During 30 months, the lubricant has been changed only twice a year, and motors have not required overhauling.

Circle 29 on Service Card, Page 52

Diesel Adaptation

Towmotor has announced its four most popular trucks, LT-62, LT-60, 460 and 480-P, are available with diesel power. The diesel units retain the basic operating features of Towmotor's gas driven equipment.



Circle 30 on Service Card, Page 52

Trigger-Type Spray Gun

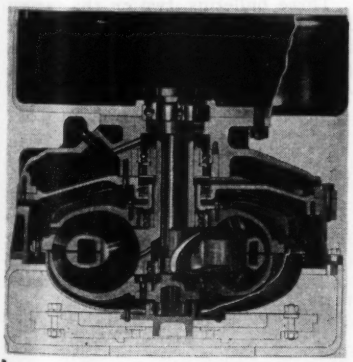
A new trigger-action, lightweight, all metal electric spray gun has been introduced by Champion Implement Corp. A high speed electric pumping device delivers over 90 lb of pressure at 7200 strokes per min. It is a self-

contained appliance of stainless steel with a vibrator motor in the handle. A 25-oz flint glass jar and 8-ft cord are supplied. The unit uses AC current from a 110-volt light socket.

Circle 31 on Service Card, Page 52

Torque Converter

A new torque converter coupling which automatically provides up to 2 to 1 hydraulic torque multiplication has been announced by Fuller Mfg. Co. for use on low trucks, lift trucks, delivery trucks, loaders, cranes, and other indus-



trial applications where fluid drive relieves strain of heavy start-and-stop loads. During converter operation, a reaction member is locked to the housing through an overrunning clutch—changing the oil direction so that the thrust reaction is taken by the housing.

Circle 32 on Service Card, Page 52

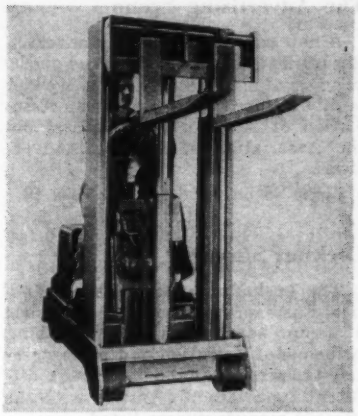
Hopper-Car Trailer

A hopper-car trailer, designed for movement of petroleum catalyst and other materials over short distances, has been built by Warner Fruehauf Trailer Co. Resembling a railroad hopper car, its gross weight is approximately 60,000 lb. A 5-in. vacuum line provides an unloading volume of 11,000 lb per hr.

Circle 33 on Service Card, Page 52

Non-Telescopic Truck

Market Forge Co. has announced development of a non-telescopic fork truck. The model combines two new features, the non-telescopic mast and a 1-hp



motor, with specifications of the Marforge ¾ hp Load-Mobile truck. It retains the interchangeable power unit feature of the old line.

Circle 34 on Service Card, Page 52

Cold Floor Compound

A new cold adhesive compound for re-setting, repairing and resealing wood block floors is announced by Monroe Co., Inc. It seals block floors tightly, without heat, and forms a smooth surface to withstand the heaviest traffic. When dusted with silica sand it can be trucked over immediately after application.

Circle 35 on Service Card, Page 52

Plastic Tote Boxes

Tewes-Roedel Plastics Corp. announces a new line of plastic tote boxes. They are light-weight, resistant to common acids, oils and greases, chip-proof, corrosion-proof and not subject to warping.

Circle 36 on Service Card, Page 52

Line Case Printer

A machine that automatically prints display copy on as many as five sides of shipping cases at the packing point has been marketed by Adolph Gottscho, Inc. The Markoprinter enables packers with two or more product lines to eliminate pre-printed cases. Designed to print on cases of corru-

gated, fibre and wood, the machine is installed right on the packaging line. It prints one or two colors up to speeds of 2000 units per hour.

Circle 37 on Service Card, Page 52

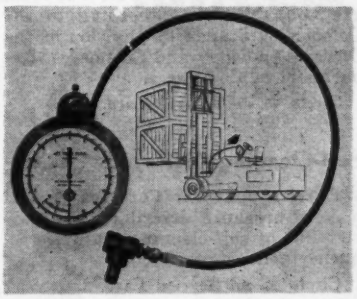
Improved Battery Cap

Industrial Research, Inc., has marketed Hydrocaps, replacements for conventional automobile storage battery caps. They contain a catalyst which converts escaping gases back to water, prevents corrosion and warns of overcharge.

Circle 38 on Service Card, Page 52

Fork Truck Scale

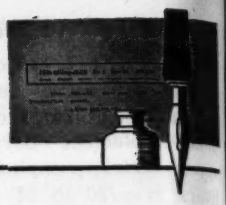
Martin-Decker Corp. recently marketed a small hydraulic lift



scale which fits on any hydraulic type fork truck. It shows the driver exactly how much weight he has lifted. Weight is read directly from the dial as the load is lifted. It insures full loads and safe loads and allows the driver to keep count of the total weight he has handled.

Circle 39 on Service Card, Page 52

FREE Literature



For prompt service, use the postage-free postcard provided here for your convenience in securing FREE LITERATURE and NEW PRODUCTS information described in this issue of DISTRIBUTION AGE. All material FREE, unless otherwise noted, as in the case of books

Accessory Data

Towmotor Corp. has available specification sheets on three of its fork truck accessories, the Towmotor Unloader, Ram and Revolving Carriage.

Circle 41 on Service Card, Page 52

Tire Inflation

The Rubber Manufacturers Association has announced publication of a chart listing recommended tire inflation for tractors. The chart calls tire inflation the most important factor in tractor maintenance.

Circle 42 on Service Card, Page 52

Cleated Belt Conveyor

A four-page illustrated bulletin describing the new Press-Veyor, Jr., cleated belt conveyor, has been published by the Rapids-Standard Co., Inc. It illustrates how the conveyor can be used for moving parts from machine to container or machine to machine.

Circle 43 on Service Card, Page 52

Wooden Nail Kegs

Printed copies of Simplified Practice Recommendation R246-51, Wooden Kegs for Nails, effective Nov. 1, 1951, are now available, according to the Commodity Standards Division of the Office of Industry and Commerce, Department of Commerce.

Circle 44 on Service Card, Page 52

Self-Cleaning Conveyors

Carrier Conveyor Corp. has issued a color brochure describing the Carrier line of self-cleaning, natural-frequency conveyors.

Circle 45 on Service Card, Page 52

Fool-proof Signals

Postive, fool-proof signals of the new Bin-Vue, materials level indicator, are outlined in a new release of Convair Co. The unit is said to give signals under pressure or vacuum with any dry bulk material that flows, granular or lumpy—from feathers to lead.

Circle 46 on Service Card, Page 52

Saw Tips Bulletin

Those interested can be placed on the mailing list of *Saw Tips*, resumed biweekly publication of DeWalt, Inc., manufacturers of power cutting tools.

Circle 47 on Service Card, Page 52

The Advertising Scene

A new concept of the way advertising works in our economy based on the value goal is presented in a booklet jointly released by the American Association of Advertising Agencies and the Association of National Advertisers.

Circle 48 on Service Card, Page 52

Locknut Survey

The Locknut Section of the Industrial Fasteners Institute has published a comprehensive survey describing principle of operation and representative types of locknuts. Thirty-six different types are illustrated, with the various manufacturers listed.

Circle 49 on Service Card, Page 52

Lower Shipping Costs

New descriptive literature issued by Dravo Corp. tells how you can reduce shipping losses, save loading time, cut marine insurance costs and eliminate pilferage by use of the Dravo Transportainer.

Circle 50 on Service Card, Page 52

Allspeed Motor Drives

Allspeed Motor Drives of from 1/3 to 7½ hp are described in a 16-page bulletin published by Worthington Corp. Pictured are both upright and horizontal drives of either closed or skeleton types.

Circle 51 on Service Card, Page 52

The Inside Story

"Inside Story—What's Going On At Your Loading Dock?" is the title of a unique cartoon-text type leaflet put out by the General American-Evans Co. outlining main features of the Gaex improved freight car.

Circle 52 on Service Card, Page 52

Axle Load Scales

An eight-page, two-color folder recently released illustrates and describes the complete line of modern, heavy duty Howe Axle Load Scales for checking weights on each axle of motor trucks and trailers.

Circle 53 on Service Card, Page 52

Shop Caddy Hand Truck

A two-wheel hand truck which also lifts heavy loads by means of a manually operated hydraulic mechanism is described in a leaflet published by Allied Manufacturing and Sales Co.

Circle 54 on Service Card, Page 52

Terrain Compensator

Descriptive information on the Lull Super Sweeper and its new automatic terrain compensator, a device which maintains constant broom-ground contact pressure at all times, is available through Lull Mfg. Co.

Circle 55 on Service Card Page 52

Trucking Bulletins

Three bulletins, two on the famous Maryland Road Test and the third a digest of the ton-mile tax, have been prepared for distribution by the American Trucking Associations, Inc.

Circle 56 on Service Card, Page 52

Fabricated Fittings

As a practical help in planning piping and equipment layouts, Naylor Pipe Co. has announced a new bulletin on standard and special fabricated fittings.

Circle 57 on Service Card, Page 52

Manufacturing Facilities

Facilities for manufacturing materials handling equipment and metal fabricated products as well as subcontract producing to individual specifications are described and illustrated in a folder issued by KIF Industrial Fabricators Division of Alfred B. King Co.

Circle 58 on Service Card, Page 52

NEW CORROSION INHIBITOR
STOPS RUST ...CUTS COSTS

If you make—ship—or store metal parts that rust can damage . . .

HERE'S IMPORTANT NEWS

New Shell "VPI" is effective in even the most difficult cases of rust prevention—and it's easy to use, too. "VPI" is a volatile corrosion inhibitor which comes in both crystal and paper wrap form.

Whenever moisture is in air, "VPI" vaporizes and makes air noncorrosive. "VPI" is applied quickly . . . containers do not have to be airtight. Container costs are reduced. Handling costs are lower because there's no greasing and degreasing . . . no need for expensive rust-removal jobs after part is unpacked.

Your Shell Representative can give you more information about the "VPI" method of rust prevention. Call him today. Or write to nearest address listed below.

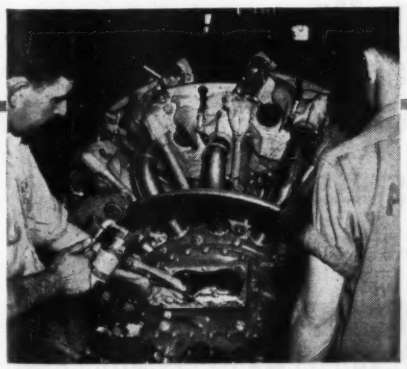
SHELL OIL COMPANY
50 West 50th Street, N. Y. 20, N. Y.
100 Bush Street, San Francisco 6, Calif.

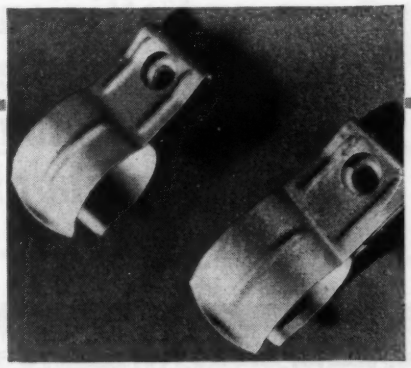
SHELL®

VPI

(a volatile corrosion inhibitor)

stops air and moisture from making rust.





"VPI" can be used many ways. The photo at the left shows powder being blown into critical areas of aircraft engines to prevent corrosion during storage. Photo at right shows identical spring clips stored 3 weeks in an open box. The upper clip was first sprayed with 4% "VPI" solution. Note that the "VPI"-treated clip suffered none of the rusting which is apparent on the lower clip.

Circle No. 128 on Card, Page 51, for more information

. . . Fruit Handling Costs

(Continued from Page 27)

ing shed. Elimination of two trailers and transfer of four workers to other work resulted from the installation of a forklift.

Getting down to dollars and cents, the study of the 250 orchards revealed that the cost of receiving and unloading 1000 boxes of apples figured out as follows:

Use of belt conveyors and hand trucks, $9.58; floor chain conveyor and hand trucks, $7.49; by hand trucks alone, $6.75; and by using forklifts and pallets, $2.18 in 36-box pallets and $1.93 in 48-box pallet loads.

These costs are based on an assumed cost of $1.25 per hour for common labor and $1.50 an hour for the semi-skilled jobs of operating the forklifts. They also include amortization and operational costs. These are estimated at five cents an hour for hand trucks, 71 cents for belt conveyors, 95 cents for floor chain conveyors, and $1.53 to $2.01 per hour for forklifts, depending on the capacity and size of the vehicle.

Could Cut Costs 20-80%

All of this indicates that the larger orchardists and some types of commercial farmers could cut their handling costs by from 20 to 80 per cent by use of additional handling equipment. For example, the grower now using a combination of belt conveyors and hand trucks at an estimated cost of $9.58 per thousand boxes could cut handling costs to as little as $1.93 by using forklifts—a saving of up to $7.65 per thousand boxes.

The big question, of course, is just how large a crop must be produced to make it practical or profitable to install forklifts?

This has also been the subject of study by the Agriculture Department, prior to the cost survey. It was indicated that a grower who produces 100 tons of cherries, berries, or small fruits, or 10,000 bushels or boxes of apples, peaches, pears or combinations of the larger fruits probably is justified in buying a forklift. An operator on this scale probably already is using other equipment at about the percentage rate mentioned earlier.

$2,000 Annual Saving

It is estimated that the saving for a 25,000 bushel crop ranges up to $1,000 a season. An orchard that handles 300,000 field boxes of fruit a season should be able to save more than $2,000 a year by converting from conveyors and hand trucks to the forklift type of handling.

Equally important is the fact that while fast operation is not essential for fruits such as apples or a number of farm commodities, the time element is vital to handling and storing the more perishable foods such as peaches, cherries, and berries. A delay of 24 hours in getting a labor force together at picking or harvest time could result in major losses.

(Resume Reading on Page 28)

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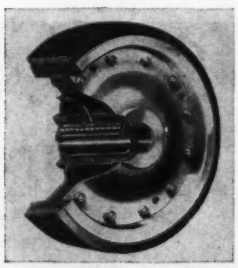

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Battery Maintenance . . .

(Continued from Page 33)

When a battery is put on charge, records are taken as to which truck the battery was taken from, time placed on charge, voltage reading, specific gravity, and temperature. Similar data is recorded when the battery is taken off charge and put in another truck. These records enable maintenance men to tell whether a battery is being charged correctly, used properly in service, or nearing the end of its life. They enable corrective measures to be taken before battery damage or truck down-time due to battery failure occurs.

Batteries are given equalizing charges periodically to keep all cells in fully charged condition. Cells deviate in normal operation due to a number of factors which affect each cell differently—addition of water, temperature, differences of cell location within the tray, etc. When giving an equalizing charge, the battery is charged at the finishing rate, pilot-cell specific gravity readings being taken hourly until four successive equal readings are obtained. Then specific gravity readings are taken of all cells, and if any is abnormally low an investigation is made to determine the cause.

In this connection, the battery room is equipped with a repair area (Fig. 3) so that repairs can be made on location. Such defects as damaged jars, broken covers, broken posts, etc., are repaired in this shop. The Terminal maintains 225 batteries which justifies the on-the-spot repair shop.

Discharge tests are given periodically to determine battery condition. In making this test, fully charged batteries are discharged at the six-hour rate to a voltage of 1.75 volts per cell. Voltage readings are recorded throughout discharge and if 80 per cent or more of the rated capacity is obtained, the battery is returned to service. If, however, the battery is not within this range, the cause is determined and the battery is repaired or a replacemen battery ordered.

Master Records

In addition to everyday records, equalizing charge records, and discharge test records, master records are kept for each battery. These master records indicate the battery serial number, make, number of cells, ampere-hours capacity, and service location. A monthly record is kept on each battery indicating when the battery went into service, when major repairs were required and when the battery was replaced. This record is useful when selecting replacement batteries.

The severe demands of the trucks (Fig. 4), particularly during peak periods, make this well-scheduled system imperative. Not only does the system pay off in efficient truck operation, but it also results in long battery life. Proper battery care is doubly important today because the shortage of materials puts this commodity in the short supply category and demands the maximum kilowatt of every battery now in service. •

(Resume Reading on Page 34)

A national opinion poll on van ownership

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From Wooster to the World of Transportation

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. . . Materials Handling Plan

(Continued from Page 31)

eters and considered as being square, unless they are to be nested. The different ways for palletizing barrels was covered in detail in a article which appeared DA, Aug., 1951, issue. Bags should be measured *in pile* in order to determine their true dimensions under pressure.

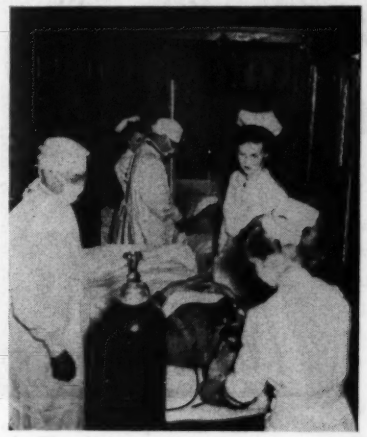
Figures Serve as Guide

Collecting this detailed information may appear to be a tedious business, but the figures are essential; not only for the present purpose but also as a guide to pattern standardization.

In addition to the basic data for the various packages to be handled, we must have specific information regarding the characteristics of the buildings and work areas where the operations are to be performed. Three dimensional models are, of course, the ideal means for studying this phase of the work, but, lacking these, large scale drawings of all work areas—rooms, platforms, yards, etc.—can be used effectively.

Whether the following information is indicated on drawings or recorded in columnar form, it should include:

1. Dimensions—wall to wall of all rooms;
2. Pilable Heights—with allowances for overhead obstructions, space required by fire regulations under sprinklers, etc.;
3. Surface Characteristics—floors, ground, etc.;



A truck trailer, donated by the Fruehauf Trailer Co., has been converted to a mobile hospital to help Youngstown (O.) civil defense workers train

4. Floor Load Capacities;
5. Column Spacings—center-to-center and in the clear;
6. Doors—minimum widths, and heights;
7. Passageways—minimum widths and headrooms;
8. Ramps—lengths, horizontal rises and per cent grades;
9. Present and Projected Aisles—locations and widths. (The latter may have to wait until certain decisions as to unit loads and machines have been made). Notes should cover any overhead obstructions in aisles which may interfere with piling.
10. Elevators—locations, dimensions in the clear and speeds, loaded and unloaded;
11. Truck Platforms—heights above street level, minimum widths and average heights above or below truck beds;
12. Car Platforms—heights above track level, clearances between cars and platforms and widths;
13. Current Characteristics—DC or AC-voltage, amperage and cycles.

Record Dimensions

If unitized loads are to be handled in over-the-road carriers, the salient dimensions of the trucks and trailers in which operations are to be carried on should be recorded. These include

(*Please Turn Page*)

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Board of Harbor Commissioners • City of Los Angeles City Hall, Los Angeles 12, Calif.

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. . . Materials Handling Plan

(Continued from Page 59)

the height above street level of the tailgate, inside dimensions and, especially, the width and height of any doors.

Although the gathering of this information also takes time and thought, it will actually save time in the long run because the data will be referred to time and again during the course of the program study.

Now that we have covered the information essential for making an intelligent approach to a materials handling setup, we are ready to go to work on our specific problems. The first is a matter of skid or pallet selection which raises the question of standardization.

Government agencies and some industries have found from experience and study that certain sizes are most suitable for handling the majority of products they are called upon to move and tier. The grocery field has adopted two pallets of either two-way or four-way entry. One is 32 x 40 in. for handling loads up to 2000 lbs and 40 x 48 in. for 3000-lb maximum capacity.

Most public cold storage plants which have palletized their operations use a size closely approximating 36 x 48 in. or its reverse, 48 x 36 in., usually in the two-way construction. These sizes accommodate most advantageously the many commodities such as shell eggs, apples and citrus fruits, which are packaged in containers approximately 12 x 24 in.

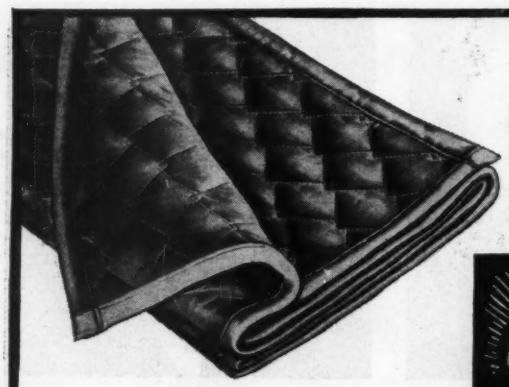
Words are the main pay-load of this International truck which helps Washington state's "Keep Green" crusade for forest fire prevention. The truck carries paint crew, paint gun, stencil to do the highway-marking job

The U. S. Navy, after making detailed studies, has now settled on a four-way pallet 40 x 48 in. This latter type of pallet will, no doubt, be adopted quite generally by concerns which plan to ship palletized loads in common carriers. These units fit both box cars and refrigerator cars as well as the average over-the-road motor vehicles of today.

Remember Standardization

Standardization must be kept in mind by a concern which expects to ship or receive unitized loads. On the other hand, should the operations be confined to intra-plant movements or movements between plants of the same organization, there is no reason why any particular "standardized size" of pallet should be used unless, of course, it fits the given situation. The sensible thing to do is to fit the skid or pallet to the particular requirements of the operations for which it is intended.

It is important to confine the number of sizes to an absolute minimum, preferably one. When a variety of difference sizes is made available it has been found that it is difficult to keep track of them. The chances are that one designed for a specific use will not be available when wanted.



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Further, a multiplicity of sizes complicates the selection of equipment to handle them. More will be gained by uniformity and flexibility in use than will be gained from diversity.

Skid Construction

Skids are almost always constructed with their longest dimension in the direction of travel. On the other hand, two-way pallets are sometimes built to be handled in this way while others are built with the long dimension across the forks. With this latter construction, the load is more stable than when it is carried lengthwise. Further, every inch added to the stringer length adds just that much more space to the aisle required for 90 deg piling.

Common sense tells us that the larger the unit load carried per trip the lower the unit handling cost. But, there are practical limitations to size imposed largely by the physical features of buildings and elevators and by the characteristics of handling equipment itself.

Piling Height

As the area of a pallet is increased, the height to which the unit load can be piled practically is also increased. The general rule is that the height of a unit load should not exceed its largest dimension. There are exceptions, both plus and minus.

Very rigid containers, if well interlocked, glued or strapped, can be higher than average and the height to which crushable materials can be piled and still be self-supporting may have to be lower to secure good results.

With the product-container information collected and recorded as described above, the choice of skid or pallet size becomes a matter of cut and try. What may be ideal for one group of containers may not fit others, and vice versa.

(*Please Turn Page*)

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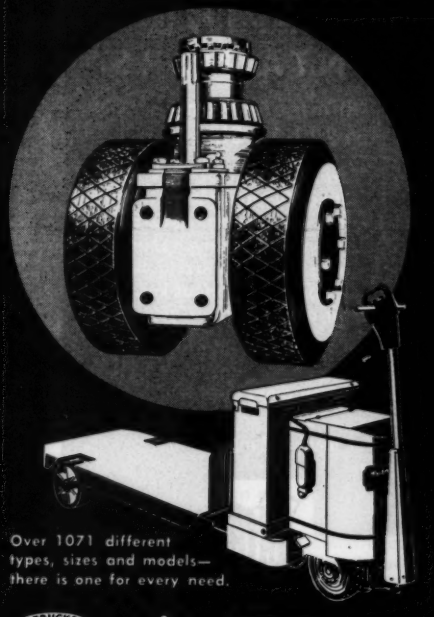

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. . . Materials Handling Plan

(Continued from Page 61)

Very rarely can the dimensions of the carrier for a variety of products be selected which are ideal for all—hence the importance of knowing which are the most frequently handled items, and the necessity for seeing that they, at least, can be piled with good results.

Study Pallet Patterns

Some characteristics of pallet patterns should be noted here. Package-on-package or block-piling (Fig. 1) gives unstable loads unless they are glued or strapped.

Square pallets frequently result in a sort of pinwheel pattern (Fig. 2) and sometimes a "chimney" runs through the pile. This space can sometimes be utilized, as in piling bags, by putting one or two in the opening, but they become hidden and thus complicate checking and inventory.

Two-on-one, cross or locked piling, as it is variously called, is a much more stable arrangement. Fig. 3 shows how cases of shell eggs are stored on a 36 x 48-in. pallet. Although this pattern is reversible, the center division between packages extends down through the pile and there is a tendency for the two sections to separate. Fig. 4 shows how this can be overcome, but again a hidden package makes it difficult to stamp lot numbers on each container unless it is done before the load is assembled.

Use Both Patterns

Some warehousemen use this pattern for the top layer and then use the Fig. 3 arrangement for the lower layers of a four-high unit. The way many bags can be piled as a locked load is shown in Fig. 5. Of course, the layers are alternately reversed.

A 36 x 48-in. pallet is a poor one for handling barrels or drums of approximately 25 in. diameter stored on end as in Fig. 6. It is wasteful of cubic space and the large overhang prevents the forks from getting well under the pallet. Here is a case where, if the volume warrants, either a 24 x 48 in. or a 48 x 48 in. pallet is indicated if full use of space is to be realized.

"Looks like we're late again."

Pack With Edges Flush

Provided the packages are firm and passageways are sufficiently wide, there is no objection to a few inches overhang, say two or three, on each side. Fibreboard cartons which are slack packed or filled with a soft product should be piled with the edges flush with the sides of the pallet. This is especially important if the storage area is damp or humid.

After the best size for the pallet or skid has been determined, it must be checked against all minimum dimensions and other limiting factors, such as elevator capacities, allowable floor loads, etc. This must also be done with the machines which are to handle the unit loads. Sometimes the machine selected to do the tiering is too heavy to ride the elevator. In some instances such a situation can be overcome by moving the machine minus its battery, but this is time-consuming and is not recommended if inter-floor movements of the machine are frequent.

See Previous Articles

By referring to the previous articles of this series, where machine characteristics were discussed, the reader will have the basic information needed to help him in selecting the equipment to meet his requirements. For instance, if the matter of aisle space is all-important, he will find that "walkies" or operator-ride stackers require much less maneuvering space for 90 deg piling than the more conventional types of high-lift machines, but he will recognize that this advantage is gained at the sacrifice of speed in putting away unit loads.

Consider Operating Problems

Each phase of the operation has to be taken into consideration in selecting equipment. If high-lift machines are to operate in freight cars or motor trucks the masts must be lower than when these operations are not part of the work. If there are ramps, the machines must be powered to make the grades. Step by step each spot must be studied to be sure that the tentatively selected machines will function properly.

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Sometimes the investigation discloses some needed construction change—a door widened, a checker's booth moved or a ramp modified to make the plan workable. Of course, these changes involve expenditures and should be charged up to the overall cost of mechanizing the operations in a plant, even though, as is frequently the case, they were really necessary to improve manual handling.

Few Sizes As Possible

It is most desirable, wherever possible, to keep the number of different types and sizes to a minimum. Equipment purchased for a specific purpose, unless kept reasonably busy, eats its head off in carrying charges. There is also much to be gained by using as few different capacities of batteries as possible. Not only will there be greater flexibility, but the number of different charging machines will more than likely be lower than when a variety of batteries is used.

Nothing should be taken for granted in making this preliminary study. Decisions should be based on facts and on the information described here, but modified, of course, to fit the given conditions. Hindsight and wishful thinking can be costly, but a well planned program is bound to give the desired results.

(Resume Reading on Page 32)

Michigan State Course

Michigan State College has established a four-year course in packaging technology designed to train men for positions as packaging specialists.

The unique design of this electric fork-lift truck makes right angle stacking possible in less than six-ft aisles, reducing by more than 50 per cent the space of the usual 10 to 12 ft aisles. The space can be used for additional storage or for processing. One-half the weight of usual models, this model can run on limited capacity floors

Industry Items

Boston Wholesale Meat Terminal, Boston, Mass., broke ground Sept. 3 inaugurating $10 million construction program.

Rock Island Railroad, Chicago, Ill., opened new shop for maintenance and repair of diesel engines at Silvis, Ill.

American Wood Products Corp., Marion, S. C., acquired new veneer mill at Millry, Ala.

Chase Brass & Copper Co., Chicago, Ill., building 60,000-sq ft factory in Chicago for consolidation of warehouse and office.

Olney J. Dean Steel Co., Chicago, Ill., construction of a new 30,000-sq ft building in Chicago.

Pacific Intermountain Express, Oakland, Cal., establishment of new district sales offices in Washington, D. C., and New York, N. Y.

Diagraph-Bradley Industries, Inc., Herrin, Ill., added to their line Link Junior and Senior gummed tape dispensers and label moisteners, having purchased the inventory and tools of L. Link & Co., New York, N. Y.

(*Please Turn to Page* 82)

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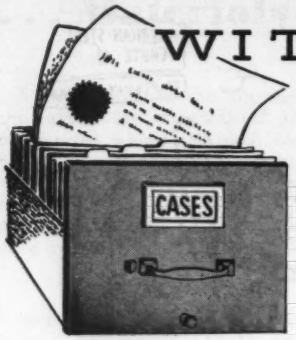

WITHIN THE LAW

By Leo T. Parker

Legal Consultant, Distribution Age

DISTRIBUTION & MARKETING

Last June the writer traveled several Western and Northwestern States and had the pleasure of talking personally with many sellers and distributors of merchandise, who are regular readers of DISTRIBUTION AGE. I found that many readers have local problems which involve contract law. As many of the legal questions are common, I shall review a few of these important questions. Opinions are verified by leading higher court decisions, which I listed especially in view of writing answers to these legal questions.

Can a person use his family name as a trade-mark without likely resulting infringement?

A reader asks: "Can a person always use his family name as a trade-mark without infringement?"

According to a late higher court decision, the answer is yes, if no unfair competition is involved.

For example, in K—— Drug Company v. K——, 188 Fed. (2d) 696, testimony showed facts as follows: A pharmacist named M—— K—— established a neighborhood drug store in St. Louis, Mo., in 1933 under the name of "K——" and "K—— Drugs." He used a picture of cats in connection with the name. In 1914 the K—— Drug Co., a Delaware corporation was organized. It owns a chain of super drug stores under the names of "K——" and "K—— Drugs," and symbolized in pictures of cats. In 1936, or three years after M—— K—— started his business in St. Louis, the K—— Drug Co. extended its chain of stores into St. Louis and then sued M—— K——. However, the higher court held that M—— K—— did not infringe the trade-mark of the K—— Drug Co., saying:

"It appears to the court that in the year 1933 M—— K—— was within his rights in then establishing and carrying on his neighborhood drug store under his own name of K—— spelled out in letters and also symbolized in pictures of cats; that at that time the plaintiff (K—— Drug Co.) had not established a secondary meaning for its trade name and symbols in the trade area of St. Louis. There was no bad faith nor 'any design inimical to the interest of the plaintiff' in the adoption by M—— K—— of his surname as the trade name of his drug store business in St. Louis."

On the other hand, this higher court explained that no person may use his own name in a manner likely to deceive the public, or to unfairly obtain business, sales, or good will of another. This is so if a person or corporation has established a business or trade-mark and later a person or corporation, having the same or similar name, uses it for deception or its use accomplishes deceptive purposes.

Must purchaser accept goods delivered after contract day if seller was not at fault?

Another reader asks: "If a seller finds it impossible, due to strikes or scarcity of materials, to deliver merchandise to a purchaser on the date promised, can the seller notify the purchaser that the merchandise will be delivered at a later date and still compel the purchaser to accept and pay for the merchandise?"

According to a late decision the answer is no. This is so because higher courts consistently hold that a purchaser may, without liability, always cancel a contract of sale, if the seller fails to make delivery of the purchased merchandise on the date the seller promised to make delivery.

For illustration, in L—— Supply Co. v. L——, 49 So. (2d) 633, testimony showed that a purchaser signed a written contract with a seller for certain kitchen cabinets. The contract stated that the cabinets would be shipped within 30 days from contract date. The cabinets were not shipped until two weeks after this 30-day period. The purchaser refused to accept delivery of the cabinets and the seller sued to recover damages.

The higher court held that the seller could not recover any damages or payment, and said:

"Delivery was to have been made in 30 days. This was not done. The judgment that absolves defendant from liability for the price of the cabinets is not only supported by law, but is bolstered by equitable principles and considerations."

If seller refuses to deliver goods ordered under contract can he avoid paying damages?

"Assuming that a seller refuses to deliver merchandise ordered under a contract by a seller, does a situation ever exist where the seller can avoid paying the purchaser damages?"

Yes, if the purchaser breaks any part of the contract the seller may immediately cancel the contract and refuse to deliver the merchandise specified in the contract. Also a seller may not be liable in any damages for breach of sale contract if the purchaser can purchase the same merchandise at the same or lower price than was stipulated in the contract.

For illustration, in T—— Co. v. C——, 230 Pac. (2d) 512, testimony showed that a purchaser purchased from a manufacturer 30 hay rakes at $448.80 each. The purchaser refused to accept delivery of 19 of the rakes, and the seller filed suit.

The lower court held the purchaser liable for $6,000 damages. The purchaser appealed to the higher court and proved that the contract price for the rakes was $448.80 each, and that the rakes were worth $425 each on the open market. The difference between the market value of the rakes at $425 each and the $448.80 contract price was $23.80 for each rake, or a total of $452.20.

The higher court reversed the lower court's verdict, and said:

"The jury should not have found that he (seller) was damaged in an amount greater than $23.80 per rake or $452.20 for the 19 rakes not accepted. In the lower court the jury returned a verdict for $6,000. Such a verdict was grossly in excess of the damages which were established by the evidence."

The court also indicated that if the seller could have sold the rakes to another purchaser for $448.80 each, the seller would have suffered no financial loss and therefore the original purchaser would not have been liable to the seller for any damages.

Intentions of contracting parties are most important despite written agreements.

Notwithstanding the above explanations of law, it must be remembered by readers that always the intentions of contracting parties are most important.

(*Please Turn to Page* 97)

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. . . Accident Responsibility

(Answers to Questions on Page 23)

CASE NO. 1

CAUSED BY OUR DRIVER. The statement that he was "almost across" the intersection when the other vehicle hit his rear fender, indicates that our driver had wilfully **pulled out into the path of an oncoming** vehicle, and then attempted to beat it across the intersection.

Except in the legal aspect, it is unimportant that our driver was nearly across the intersection! This accident could have been prevented if our driver had waited until the oncoming vehicle had crossed.

CASE NO. 2

CAUSED BY OUR DRIVER. The technique used by our driver to get back onto the pavement was wrong. He should have slowed to less than 10 mph, positioning his right front wheels at least two feet from the edge of the pavement, before turning the front wheels sharply back onto the pavement. This would have precluded skidding along the edge of the pavement.

Of course, first, he should have looked each way before attempting this pull-back. This is especially important, since the rear view mirror shows only that area directly behind, and fails to reveal vehicles following in the adjacent lane.

CASE NO. 3

CAUSED BY OUR DRIVER. Approximately 40 ft. are required to make an emergency stop of a vehicle from 20 mph. Following another vehicle at only 25 ft. is asking for an accident.

A direct cause of this accident is the fact that the brakes were slammed on before the wheel was cut. It is impossible to steer a vehicle with locked brakes. So first, he should have cut the wheel in the desired direction, applied the brakes with a pumping action to permit steerage. Thus, he could have avoided striking the vehicle in front of him.

This was definitely caused by our man.

CASE NO. 4

CAUSED BY OUR DRIVER. Contrary to popular belief, much more of the braking action comes from the front wheels than from the rear wheels, due to the weight distribution. Locking the brakes thus always tends to cause the front end to slow more quickly than the back end, often with a resultant skid.

Our driver should have applied his brakes with a pumping action to permit steerage. The brakes were obviously in good working condition and their performance was normal and understandable.

CASE NO. 5

CAUSED BY OUR DRIVER. The claim of being blinded by headlights is an admission that the driver was not properly using his eyes. By looking at the right edge of the road well beyond the oncoming vehicle, our driver could have offset the blinding effect of glaring headlights.

When meeting blinding headlights, our driver also should slow down, so that he can retain control of his vehicle. Then, by following the technique of riveting his eyes on a point to the right of the pavement and well beyond the oncoming vehicle, he will have no difficulty in meeting the headlights, yet is able to keep cognizant of the oncoming vehicle out of the "tail of his eye."

(*Please Turn to Page* 71)

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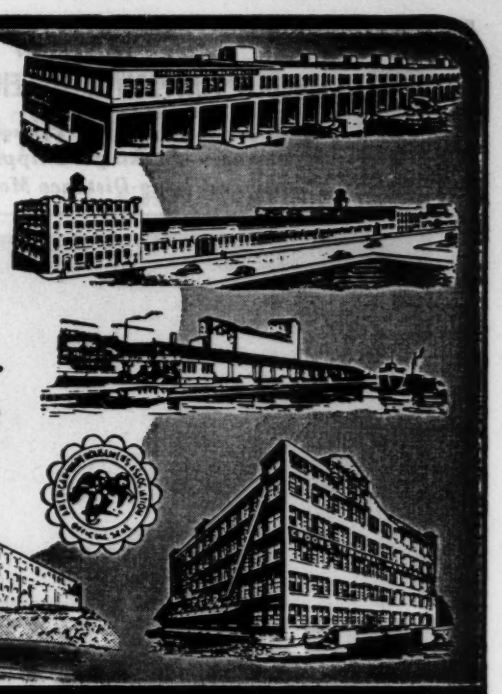

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. . . Accident Responsibility

(Answers—Continued from Page 69)

CASE NO. 12

CAUSED BY OUR DRIVER. Driver should realize that the door of any vehicle parked along the road is apt to be swung open in his path. Therefore, he should learn to drive at a distance, where practicable, at least 4 ft. from the parked cars, or just beyond the arc of the swing of a given door.

Our driver could have prevented this type of accident by staying away from parked cars.

CASE NO. 13

CAUSED BY OUR DRIVER. The fact that the drunkometer test cleared the driver, insofar as legal degree of intoxication is concerned, does not bear too heavily on this case. It is possible that the limited amount of alcohol, in this case, might have impaired the driving ability of this individual.

But far more important is this: The technique employed for passing was obviously faulty on the part of our driver. The vehicle shuld have pulled into the passing lane well in advance of the actual passing, to avoid this circumstance.

The fact that the owner of the other vehicle slowed down, causing us to run into him, or to nick him as we went around, shows that we attempted our passing procedure much too late, thereby contributing to the accident. The passing movement was delayed until, or initiated when, our vehicle was too near the rear of the vehicle ahead.

CASE NO. 14

CAUSED BY OUR DRIVER. Had our driver followed the large truck at a distance of 70 to 100 ft., in lieu of 10 ft., his range of vision would have been sufficiently extended to eliminate the necessity for pulling out into the path of an oncoming vehicle; since it would have been seen well in advance.

CASE NO. 9

CAUSED BY OUR DRIVER. This is a common occurrence, and our driver is quite sincere in stating the other driver came "out of nowhere" going like a streak. However, the consequences demonstrated that the vehicle was coming.

During the approach to the intersection, the other vehicle was obscured from view by our left corner post. The blind spot caused by the door post or corner post makes it imperative to check the deadly blind spot. And this is an explanation why a "full stop is so vital for safety at required stops—it permits vehicles to emerge from the blind spot.

CASE NO. 10

CAUSED BY OUR DRIVER. The technique of turning right was faulty on the part of our driver. The fact that the other vehicle attempted to pass on the right indicates that our vehicle either swerved out or started the turn from the wrong lane. This results from attempting to turn at a speed not commensurate with the angle of the corner.

It is much easier to execute a sharp right turn at 3 or 4 mph, than at 10 or 15. To attempt a right corner at 20 mph, requires a considerably larger arc than that afforded by the usual right-angled corner. Had our driver started his turn at a much slower speed, he could have "crowded" the right curb, discouraging anyone from passing on the right.

(Resume Reading on Page 26)

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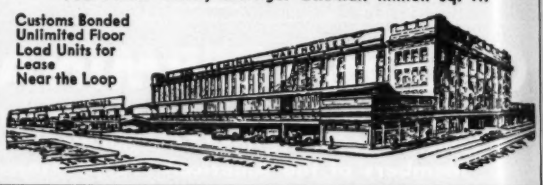

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(Continued from Page 15)

gotten DPA to agree that small business should be cut in for about 20 per cent of the total. This means that something like $7.5 million in tax certificate applications will be considered from small firms. Most of the remaining $27.5 million in new capacity has already been programmed for the larger plants. And for the purpose of this particular productive capacity, a small firm is also considered as one employing less than 300 workers.

Stockpiling Objectives Stockpiling of strategic and scarce materials may be expected to be stepped up, now that the materials situation is easing and plans are already under way to repay the "borrowed" materials released to industry during the severe shortage. A 10-man inter-agency group is now deciding on the acquisition rate to be used over the immediate future. One major job is now to locate and arrange for adequate warehousing space for the materials to be obtained through the $8 billion program. Less than half the materials needed to meet the goal has been bought or contracted for and the Munitions Board is already finding itself unable to obtain storage facilities.

Distribution Neglected Commerce Secretary Charles Sawyer believes that more attention should be given to problems of distribution and handling. He says that heretofore main interest has been centered on production and that development of newer and better techniques for handling and distribution has been shoved aside. Sawyer has already instigated a new study of how to market and distribute present high levels of production when military needs slack off. This report is to be ready by Jan. 1. By that time, Sawyer says, under his planned reorganization of his department, he will have set up a section which will be devoted exclusively to matters concerning distribution.

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... DTA has completed and published a study (Manpower Special Study No. 6) on how handicapped persons can be utilized to good advantage by the surface transport, warehousing and storage, and port utilizattion industries.

... Transportation, warehousing, and handling needs for defense requirements in Alaska are now under study at the direction of DTA. A report is due later this year.

... A public hearing by the Tariff Commission will begin on Dec. 1 to decide whether present rate of imports for hard fiber cords and twines is injuring domestic industry.

(Resume Reading on Page 19)

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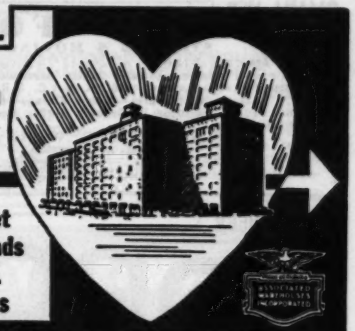

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Owned and Operated by the ST. LOUIS TERMINAL WAREHOUSE CO., ST. LOUIS, MO.

ADAPTABLE:
to whatever your particular warehousing and distributing requirements may be, Long Warehouse stands ready to serve you with tailor-made precision, and to illustrate that the service is fluid to your specifications.

S. N. LONG WAREHOUSE
ST. LOUIS... The City Surrounded by the United States

ST. LOUIS, MO.

ST. LOUIS
Over 60 Years of Service. Largest Fireproof Warehouse in the St. Louis Area.

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Agents for Allied Van Lines, Inc.
Member National Furniture Warehousemen's Ass'n.

ST. LOUIS, MO.

for conscientious handling of fine furniture

Ben Langan
Storage & Moving
Agents for Allied Van Lines, Inc.
5201 DELMAR BLVD., ST. LOUIS 8

ST. LOUIS, MO.

Merchandise Storage and Distribution.

RUTGER STREET WAREHOUSE, INC.
MAIN & RUTGER STS., ST. LOUIS 4
A.D.T. Burglar & Sprinkler Alarms.
200,000 Sq. Feet of Space
BONDED Low Insurance

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Chicago RAndolph 6-4457

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Established 1918

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"In St. Louis Sloan's Service"
Exclusive St. Louis Agent Aero Mayflower Transit Co.

ST. LOUIS, MO.

ST. LOUIS TERMINAL WAREHOUSE CO and MID-WEST TERMINAL WAREHOUSE CO.
SERVICE THAT EXCELS

"Serving industry for twenty-six years"

OVER 1,000,000 Sq. Ft. of WAREHOUSE Space
Located right in the midst of business

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FAST and EFFICIENT DISTRIBUTION in the ST. LOUIS AREA

Complete Facilities

Pool car distribution
Reforwarding storage in transit
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We specialize in storage of candies in our new automatic temperature and humidity controlled rooms.

As well as general warehousing and cold storage—also pool car distribution and forwarding—Insurance 16.2c. per $100.00.

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St. Louis Chamber of Commerce

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STORAGE & MOVING COMPANY
1024 Dodge Street Omaha 2, Nebraska
Omaha's most modern, centrally located warehouse. Fireproof construction—Fully sprinklered—Low insurance. Sidings on I.C. R.R. and U.P. R.R. U. S. Customs Bond. General Merchandise—Cooler Storage—Household Goods Storage. Also operate modern facilities in Council Bluffs, Iowa. Our own fleet of trucks for quick deliveries.
Member of N. F. W. A. and A. W. A.
a Representative of ALLIED DISTRIBUTION INC.
CHICAGO 1 — 104 S. MICHIGAN AVE. — WAbash 2-2367
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GENERAL WAREHOUSE CORP.
601 N. National Ave., Springfield, Mo. Phone 4-1855—TWX—SO15
MERCHANDISE AND HOUSEHOLD GOODS STORAGE
POOL CAR DISTRIBUTION
We Specialize in Transit Storage
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OMAHA, NEBR.

GORDON
Storage
Warehouse, Inc.
Merchandise and Household Goods
Four modern, sprinklered warehouses, located on trackage. We handle pool cars, merchandise and household goods. Trucking Service. Let us act as your Omaha Branch.
Main Office, 702-12 So. 10th St., OMAHA 8, NEBR.
Members: A.W.A.—N.F.W.A. Agents for Allied Van Lines, Inc.
Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.
Agent ALLIED VAN LINES, INC.

BILLINGS, MONT. Established 1904

MEMBER MAYFLOWER WAREHOUSEMEN'S ASSOCIATION

BRUCE COOK TRANSFER & STORAGE COMPANY
Complete Facilities for Storage of Merchandise and Household Goods
Bins in Transit and Pool Car Distribution
Warehouse Dock and Terminal for Five Truck Lines
Private Siding Free Switching
Agents for Aero Mayflower Transit Company
Member Mayflower Warehousemen's Association
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RAYMOND BROS. CLARKE CO.
LICENSED AND BONDED WAREHOUSEMEN
FIREPROOF — BRICK & CONCRETE — SPRINKLERED — LOW INSURANCE
STORAGE & CARLOAD DISTRIBUTION OF ALL KINDS
PRIVATE SIDING — CB&Q R.R. — FREE SWITCHING — TRANSIT STORAGE
"BETTER WATCH WESTERN NEBRASKA"

HASTINGS, NEBR. 1876 1952

MEMBER MAYFLOWER WAREHOUSEMEN'S ASSOCIATION

BORLEY'S
Storage & Transfer Co., Inc.
Pool Car Distribution
FIREPROOF BONDED
STORED OR SHIPPED

MANCHESTER, N. H. Make Our Warehouse Your Branch Office for Complete Service in New Hampshire

NASHUA, N. H.
CONCORD, N. H.
McLANE & TAYLOR
Bonded Storage Warehouses
Offices 624 Willow St.
"Crating Furniture Our Specialty"
General Merchandise Storage and Distribution, Household Goods Storage, Cold Storage, Unexcelled Facilities. Pool Car Distribution Direct R. R. Siding, Boston & Maine R. R.

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Merchandise and Household Storage—Pool Car Distribution
We operate Thirty Trucks and have connections to all points in the State. Our buildings are clean, both Fire and Non-Fireproof, located on the lines of the C. B. & Q.—Mo. Pacific and Union Pacific with all other lines entering either city, absorbing switching.
We are Bonded by the State—Our Rates are reasonable. We solicit your business and guarantee satisfaction. Investigation invited.
SULLIVANS
Transfer & Storage Co. Lincoln 8, Nebr., 301 N. 8th St.
Grand Island Storage Co. Grand Island Nebr., 311 W. 4th St.

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Serving Metropolitan New York and New Jersey Areas
MERCHANDISE STORAGE
Location in non-congested area provides quick turn-around. One story operation. Completely palletized.
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EAST 1st ST. & LEXINGTON AVE., BAYONNE, NEW JERSEY
Tel.: HEmlock 6-8480 BErgen 3-8100 WOrth 4-0466

Industry Items

(Continued from Page 63)

Fruehauf Trailer Co., Detroit, Mich., added two new branch factories, at Indianapolis, Ind., and Wallingford, Conn.

Stiles Conveyors and Transmissions, Miami, Fla., new company formed by John W. Stiles, former president of the **Island Equipment Corp.** The new firm will serve as factory distributors for many nationally known makes of materials handling equipment.

Interlake Iron Corp., Chicago, Ill., enlarged its Chicago plant by extending its ore receiving dock, building two new ore unloading bridges and expanding one of its blast furnaces.

Firth Sterling Steel & Carbide Corp., Pittsburgh, Pa., construction of a warehouse in Melrose Park, Ill.

Engle Paper Box Mfg. Co., Chicago, Ill., acquired additional 16,000 sq ft of warehouse space.

Hagan Corp., Pittsburgh, Pa., purchased **American Cast Products, Inc.**, Orrville, Ohio.

Port of New York Authority, awarded $472,376 in construction contracts for superstructure erection for Cargo Terminal Bldg. 140, and repaving of Terminal St., at Port Newark.

Reserve Terminals Co., Cleveland, Ohio, completion of major development program making available an additional 112,000 cu ft of storage space.

Warner Electric Clutch & Brake Co., Beloit, Wis., named Westool, Ltd., Durham, England, as its sole licensed agent to manufacture the Warner line of electric brakes and clutches in the British Isles.

TOLEDO, OHIO — Member of AWA

MERCHANTS AND MANUFACTURERS WAREHOUSE CO.

Office and Main Warehouse: 15-29 So. Ontario St., Toledo 3

CENTER OF JOBBING DISTRICT

Sprinklered Buildings—100,000 square feet Dry Storage—70,000 cubic feet Cool Storage—Private Siding—Nickel Plate Road. Free Switching. Merchandise Storage—Pool Car Distribution—Negotiable Receipts—Transit Storage Privileges—Low Insurance Rate—City Delivery System.

EFFICIENCY MEANS *LOWER* COST!

Let OVERMYER Distribution Specialists Solve Your Storage Problems

Whether you need a distributing warehouse or storage intransit, OVERMYER is the economical, efficient answer to your problem. For storage in Ohio, Michigan or Indiana, OVERMYER leads the field in low-cost warehousing. Just ship your merchandise to any of OVERMYER'S 3 big warehouses. From there on, a trained staff takes over the job of saving you money . . . handling your shipments with timetable precision.

CHECK THESE FEATURES:

Three Warehouses . . . 240,000 Square Feet of Dry Storage Space . . . Heating for Winter Storage . . . Sprinklered Buildings . . . Complete ADT Fire and Burglary Protection . . . 16 Car Sidings on NYC, PENN Railroads . . . Reciprocal Switching . . . Pool Car Distribution . . . Transit Storage Privileges . . . Merchandising Storage . . . Negotiable Receipts . . . Low Insurance Rate . . . City Delivery Service.

OVERMYER — STRETCHES YOUR STORAGE DOLLAR — EFFICIENCY

D. H. OVERMYER WAREHOUSE CO.

221 CHERRY ST. TOLEDO, OHIO

TOLEDO, OHIO — "QUICK SHIPPERS"

TOLEDO TERMINAL WAREHOUSE, INC.

128-138 VANCE STREET, TOLEDO 2, OHIO

Merchandise storage • Pool car distribution • Fireproof • Private siding Nickel Plate Road • Free switching • Negotiable receipts • Transit storage arrangements • Motor truck service • Located in jobbing District

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Commercial Warehouse Co.

25-29 E. Reno Ave., Oklahoma City 2

Exclusive Merchandise Storage

Pool Car Distributors

Free Switching 14c. Insurance rate

OKLAHOMA CITY, OKLA. — Established 1909

O. K. TRANSFER & STORAGE CO.

O K

GENERAL WAREHOUSING AND DISTRIBUTION

TULSA, OKLA.

JOE HODGES FOR MERCHANDISE . . .

MOVING
PACKING
STORAGE

Oklahoma's largest warehouse, modern, fireproof and sprinkler equipped. 106,500 square feet, available for all kinds of storage. Entire floor, 35,500 square feet, devoted to Merchandise. 315 private rooms. Lowest insurance rate in Tulsa. Heavy hauling, cross country or local. Big vans, deeply padded. Overnight Express Service between Tulsa and Oklahoma City. At freight rates! Mixed cars a specialty. Private siding on Santa Fe and Frisco, switching facilities with all R.R.'s entering Tulsa.

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Tulsa Oklahoma

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PAGE STORAGE & VAN LINES

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Storage—Moving—Packing—Shipping of Household Effects and Works of Art—Silver and Rug Vaults

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NEWEST WAREHOUSE IN PORTLAND

- Modern, all concrete
- Proper location
- Insurance—8.4¢
- ADT protection

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HOLMAN TRANSFER COMPANY

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IN THE PACIFIC NORTHWEST THE SERVICE IS RAPID

COMPLETE WAREHOUSING
LOCAL DELIVERIES
DISTRIBUTION POOL
CAR ENGINEERS

NEW! PHOTO SERVICE AIDS CLAIM COLLECTION

Photo record showing condition of contents in every boxcar . . . prints free to all shippers.

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52 Vanderbilt Ave., New York 17, Murray Hill 9-7648
549 W. Randolph St., Chicago 6, Randolph 6-4457

Do you have warehousing problems?

See—DA INDUSTRY SURVEY—Page 51

for the warehouse questionnaire

in PORTLAND OREGON
more and more firms are using
TRUCKING
DISTRIBUTION
WAREHOUSING
Rudie Wilhelm
there are good reasons why...write for our new data folder
Rudie Wilhelm Warehouse Co.
1233 N. W. 12th Avenue
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HARRISBURG, PA.
INC. 1902
HARRISBURG STORAGE CO.
COMPLETE STORAGE & POOL CAR DISTRIBUTION SERVICE
STORAGE IN TRANSIT
PENNSYLVANIA RAILROAD SIDING
MEMBER—"AMERICAN WAREHOUSEMEN'S ASSN."

HARRISBURG, PA.
HARRISBURG WAREHOUSE CO.
GENERAL MERCHANDSE STORAGE
POOL CARS DISTRIBUTED
BRICK BUILDING—LOW INSURANCE
STORE DOOR DELIVERY ARRANGED FOR
PENNA. R. R. SIDING
OPERATING KEYSTONE WAREHOUSE

ALLENTOWN, PA.
Member A.W.A — Greyvan Lines
Hummel Warehouse Company, Inc.
728-40 North 15th Street
Complete Merchandise Storage and Pool Car Distribution
Household Goods Storage
Truck Service—P.U.C. and I.C.C. Certificates
Private Railroad Siding—L.V.R.R.

HAZLETON, PA.
Est. 1915
KARN'S STORAGE, INC.
Merchandise Warehouse L.V.R.R. Siding
Storage in Transit Pool Car Distribution
Packing—Shipping—Hauling
Fireproof Furniture Storage
Members: Mayflower W.A.—P.F.W.A.—P.W.A.

BUTLER, PA.
C. W. NICHOLAS, Pres. Est. 1902
O. H. Nicholas Transfer & Storage Co.
324 So. McKean St.
Merchandise and Household Goods
Pool Car Distribution Packing and Crating
3 Car Siding Free Switching
2 Warehouses 41,000 sq. ft.

LANCASTER, PA.
INC. 1906
LANCASTER STORAGE CO.
LANCASTER, PA.
Merchandise Storage, Household Goods, Transferring, Forwarding
Manufacturers' Distributors, Carload Distribution, Local and Long Distance Moving
Member of May.W.A.—PFWA—PMTA

ERIE, PA.
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COMMERCIAL STORAGE AND POOL CAR DISTRIBUTION THROUGHOUT NORTHWESTERN PENNSYLVANIA & WESTERN N. Y.
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Member of A.W.A.—P.W.A.
Commercial Warehousing Co.
Meadow and Wolf Sts. Philadelphia 48
Complete Warehousing Service for Storage and Distribution of General Merchandise.
Private Siding B. & O. • Pool Car Distribution
Low Insurance Rates

ERIE, PA.
M.V. IRWIN MOVING AND STORAGE
OFFERS ERIE'S LARGEST AND MOST MODERN STORAGE AND WAREHOUSING FACILITY
DOORS ACCOMMODATE RAILROAD CARS, TRUCKS
• TRANSPORTATION • POOL CAR DISTRIBUTION
Phone: 2-4779

PHILADELPHIA, PA.
Established 1863
Gallagher's Warehouses, Inc.
708 South Delaware Avenue, Philadelphia 47
Merchandise Storage Storage in Transit
Direct Sidings-Penna. R.R. and Reading R.R.
Pool Car Distribution
Represented by Associated Warehouses, Inc.
New York (17) Deliveries Chicago (6)
52 Vanderbilt Ave. City and Suburban 549 W. Randolph St.
MUrray Hill 9-7645 RAndolph 6-4457

MEN in the NEWS

(Continued from Page 13)

Traffic

S. F. McDermott—appointed traffic representative by American Car and Foundry Co., New York, N. Y.

John E. Merz, Jr.—named director of transportation, Corning Glass Works, Corning, N. Y.

Harold T. Reed—new director of transportation, Line Material Co., Milwaukee, Wis., as the firm boosted the level of its traffic department to major executive status.

—Highway

Phil Diamond—named traffic representative to work out of Newark, N. J., terminal for Branch Motor Express Co.

William P. Sims—new branch manager for Fruehauf Trailer Co. in Norfolk, Va.

O. C. Bennett—elected secretary-treasurer by Board of Directors of Consolidated Freightways, Portland, Ore.

Arthur E. Dowling—appointed to the freight claims staff of the American Trucking Associations' Traffic Department.

C. W. Deppen is the new traffic representative in the Reading, Pa., area for Branch Motor Express Co.

R. M. Jaccard—named sales manager, Eastern Division, Bowers Battery and Spark Plug Co., Reading, Pa.

(*Please Turn to Page* 92)

1ST CHOICE IN PHILADELPHIA

Choose from 12 big, modern "Merchants" warehouses conveniently located in Philadelphia's wholesale, shipping and distributing centers. 2,100,000 square feet of storage space. Served by Pennsylvania, Reading, and Baltimore & Ohio Railroads. Sheltered truck platforms. Storage-in-transit privileges. Free and bonded storage of commodities of all kinds. Write for full information.

ONE OF THE CHAIN OF TIDEWATER TERMINALS AND INLAND WAREHOUSES

MERCHANTS WAREHOUSE COMPANY

10 CHESTNUT ST. • PHILA. 6, PA.

Telephone LOmbard 3-8070

"PENNSYLVANIA" is your spot in PHILADELPHIA

For efficient, economical distribution in the Philadelphia area, choose from among the 22 big, modern "Pennsylvania" warehouses. Here are over 1,000,000 square feet of desirable free and bonded storage space.

Painstaking personnel, using specialized equipment, handle even difficult commodities with speed and safety. Here are superb rail and highway facilities—one- to 10-ton trucks for prompt store-door deliveries. Low insurance rates. Write for full details about money-saving "Pennsylvania" service and storage of goods in any quantities.

Representatives:

Geo. W. Perkins, 82 Beaver St., New York 5; J. W. Terreforte, 250 Park Ave., New York 17; Henry H. Becker, 53 W. Jackson Blvd., Chicago 4.

PENNSYLVANIA

WAREHOUSING & SAFE DEPOSIT COMPANY

303 Chestnut Street • Philadelphia 6

"TERMINAL" pays off in

Philadelphia

"Terminal's" unique combination of location, facilities, and services means more time saved and money made in your Philadelphia metropolitan operations. Here are 13 big, modern, strategically situated warehouses—actually 68 acres of storage space—from which to choose.

Among "Terminal's" outstanding advantages are: U.S. Customs bonded space . . . skilled personnel, using mechanized equipment . . . connections with the Pennsylvania and Reading Railroads, with low switching rates to nearby Delaware River piers . . . good pool car service . . . storage-in-transit privileges on imports . . . safe storage and moving of household goods . . . modern truck fleet for fast metropolitan store-door delivery . . . next-morning delivery within 100 miles.

Here is all you need for safe storage and efficient distribution of your bulk and packaged merchandise in the Philadelphia area. Write us today for full details.

Member: A.W.A., N.F.W.A., Pa.F.W.A. and Pa.W.A.

TERMINAL WAREHOUSE COMPANY

81 FAIRMOUNT AVE. • PHILADELPHIA 23, PA.

NEW YORK 4 • 2 Broadway, Phone: Bowling Green 9-0986

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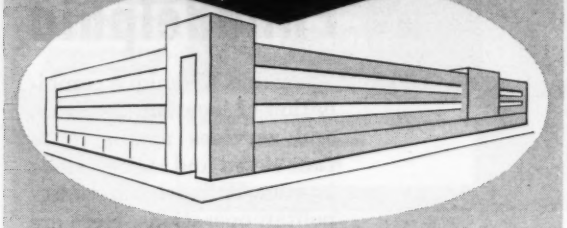
Represented by DISTRIBUTION SERVICE, Inc.

An Association of Good Warehouses Located at Strategic Distribution Centers

THE ANSWER TO YOUR NEED FOR
STREAMLINED
WAREHOUSING



CHECK THESE ADVANTAGES:

- **LOCATION** Downtown at the Golden Triangle, the hub of Pittsburgh's merchandising district.
- **NO RISK CONSTRUCTION** Modern, brick, concrete and steel buildings. Ten million cubic feet of safe, dry, heated storage, office and storeroom space.
- **LOWEST INSURANCE RATE** 100% A.D.T. dry sprinkler system.
- **PROTECTION SERVICE** Holme's Electric Protective Service.
- **EXPERIENCED ORGANIZATION** Bonded personnel.
- **STREAMLINED HANDLING** Electric hydraulic fork trucks, palletization, electric pallet movers, and 10-ton capacity self-leveling and self-opening hydraulic high speed freight elevators.
- **LOADING, UNLOADING FACILITIES** 52 off-the-street, canopy type truck wells protect shipments in and out of the terminal.
- **TRANSPORTATION** Private double rail siding off main line of the Penna. R.R., accommodating 62 cars.
- **TRUCKING** 55 connecting lines pick up and deliver daily.
- **STORAGE-IN-TRANSIT**

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1320 PENN AVENUE • PITTSBURGH 22, PA.
COURT 1-4000

PITTSBURGH, PA.
ED WERNER TRANSFER & STORAGE COMPANY
1917-19 Brownsville Road
Pittsburgh, Penna.
Storage, Packing and Shipping
Member of National Furniture Warehousemen's Ass'n.
Agent of Allied Van Lines, Inc.

PITTSBURGH, PA. Thomas White *Owner and Manager*
2525 Railroad Street, PITTSBURGH 22
In the Heart of **Pittsburgh's Jobbing District**
STORAGE IN TRANSIT - B. & O. SIDING
COMPLETE TRUCKING FACILITIES
A.D.T. PROTECTION
WHITE Terminal Company
2525 Railroad Street
Also Operators of
WHITE MOTOR EXPRESS CO.
Established 1918

SCRANTON, PA.
R. F. POST DRAYMAN AND POST STORAGE, INC.
LOCAL & LONG DISTANCE MOVING
MANUFACTURERS' DISTRIBUTORS
HEAVY HAULING & RIGGING
HOUSEHOLD GOODS STORAGE
PACKING, CRATING, SHIPPING

MEN in the NEWS

(Continued from Page 90)

West Coast Fast Freight, Los Angeles, Calif, has named three new vice presidents—**M. E. Bealey, H. Roy Kersbergen** and **C. R. Fischer. R. E. Carroll**—named district manager at Los Angeles.

Carl H. Golm — appointed branch manager in Saginaw. Mich., by Fruehauf Trailer Co.

Harry H. Grimm—appointed vice president in charge of sales, Mutual Truck Parts Co., Inc.

Frank Costanzo, National Distillers —elected president of the N.Y.U. chapter of Delta Nu Alpha.

—Rail

F. H. Ebbert—named vice president and general sales manager, Gustin-Bacon Mfg. Co., Kansas City, Mo. G-B also named **Edward A. McCabe** manager of its New York division.

William C. Seiforth—appointed assistant to vice president in charge of operations, Republic Carloading and Distributing Co., New York.

Frank E. Russell—resigned as acting director of the Railroad Transport Division of DTA to return to the Southern Pacific Railroad as superintendent of motive power at Sacramento, Calif.

Arthur P. Neill — named assistant general auditor by the Rock Island Lines. Rock Island also promoted **George R. Huntoon** to superintendent of safety and operating rules.

John W. Curran—appointed assistant signal engineer with headquarters in New York by the New York Central Railroad.

V. H. McClean — now assistant freight traffic manager of the Eastern Region, Pennsylvania Railroad. **W. S. Merrick**—moved from the Philadelphia post to that of general freight agent in New York.

Charles Sanders — appointed sales manager, transportation division of Minneapolis-Honeywell Regulator Co., to direct sales of control equipment for railway cars and diesel locomotives.

Arthur R. Seder, vice-president, Chicago and North Western Railway System — elected vice-president in charge of Finance, Accounting, Taxation and Valuation Department of the Association of American Railroads.

Warehousing

Herbert C. Ochsner — new office manager of the Northwestern Transfer Co., Portland, Ore.

Joseph Visceglia — named vice president of United Security Associated Warehouses, Inc., New York, N. Y.

D. H. Overmyer, Jr.—to serve on the Transportation and Communication Department Committee of the U. S. Chamber of Commerce.

F. Leo Werner—named Wisconsin district manager, Interstate Dispatch, Inc., Chicago. **Edward P. Karier**—promoted to manager of the Milwaukee Terminal.

Howard S. Cullman — chairman of the Port of New York Authority, selected by the Hundred Year Association of New York to receive the Annual Gold Medal Award for distinguished service.

Joe Hammer—new manager of operations, Lyon Van and Storage Co., Los Angeles.

Hart Perry — elected president of the Canadian Warehousemen's Association.

(*Resume Reading on Page* 15)

SEATTLE, WASH. J. R. GOODFELLOW, Pres.

OLYMPIC WAREHOUSE & COLD STORAGE CO.
MERCHANDISE STORAGE & DISTRIBUTION
1203 Western Avenue — Seattle 1, Wash.
Cold Storage—Dry Storage—Rentals—Pool Car Distribution—Office Rentals
Fireproof, brick const.; Sprinkler system; Insurance rate: 12.8c. Siding connects with all rail lines.
Bonded U. S. Customs: State License No. 2
Member of A.W.A. (C.S.) Wash. State Whsmns. Assn.

SEATTLE, WASH. Seattle's One-Stop Warehousing Service!

Merchandise Storage
Distribution and Cartage
SEATTLE TERMINALS, Inc.
Executive Offices: 3440 E. Marginal Way, Seattle 4

SEATTLE, WASH. Lloyd X. Coder, Pres. Ellis L. Coder, Secy.-Treas.

SYSTEM Transfer & Storage Co.
Established 1919
2601-11 Second Avenue, Seattle 1
Complete Drayage, Storage and Distribution Service
"System Service Satisfies"
Member—A.W.A.—W.S.W.A.—S.T.O.A.

SEATTLE, WASH.

TAYLOR-EDWARDS WAREHOUSE & TRANSFER CO., INC.
1020 Fourth Avenue South — Seattle 4
WAREHOUSING • DISTRIBUTION • TRUCKING
Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

SPOKANE, WASH.

GEN'L WAREHOUSING & CARTAGE
Private siding on NP, served by any RR. Jobbers display and offices. Also licensed storage for yellow label goods. Cartage rights.
Harvey Lounsbury, Mgr.
So. 124 Wall St. (8). Riverside 6186.

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LYON VAN & STORAGE CO.
AWA
LET LYON GUARD YOUR GOODS

SPOKANE, WASH. P. C. HINTON, Owner

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E. 41 Gray Avenue, Spokane, 8
Telephone, Office and Stenographic Service
Specialize in serving food and related industries; pool car distribution; 44 trucks and tractors with semi-trailers. New 49,000 ft. modern warehouse, equipped with forklift tractors.
a Representative of
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ALLIED DISTRIBUTION INC.
NEW YORK 10 — 51 WEST 52ND ST. — PLaza 9-0957

SPOKANE, WASH.

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800 N. Hamilton St. — Spokane 11
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New York—Chicago—San Francisco

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401 East 21st St. — Tacoma 2
WAREHOUSING • DISTRIBUTION • TRUCKING
Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

Within the Law (Continued from Page 64)

For example, in G—— v. D——, 90 N.E. (2d) 56, two parties made a verbal contract. After a few months had expired, they signed a written contract which contained a clause to the effect that all verbal agreements were cancelled and the written contract expressed the sole and entire agreement, and that the written contract could not be modified except by writing. Later in complete disregard of the written contract, the parties agreed orally to modify the written contract.

In subsequent litigation the higher court held that notwithstanding the clause in the written contract which specified that it could not be modified except by written agreement, yet the parties could verbally or orally agree to cancel or modify the written contract. The court said:

"It is fundamental that a contract must be construed according to the expressed intent of the parties."

Certain surety contracts must be in writing or the courts may consider them void.

A reader writes: "A man named Smith, we know very well, came in our office a few months ago with a man named White. Smith instructed us to sell White all the merchandise that he wanted and 'if he doesn't pay you, I will.' We have witnesses to prove this. We sold White $6,272 worth of merchandise on credit and we cannot collect from White. We are sueing Smith who says that we cannot collect from him."

Smith is not liable. The law in all States is that a surety contract or obligation is void unless in writing. So, therefore, when Smith verbally guaranteed White's account, it was just the same from a legal standpoint as if he had said nothing. In other words, Smith is not liable because he did not reduce in writing his guarantee to pay White's debts.

On the other hand, Smith would have been liable if he had said: "Let White have on credit all the merchandise he wants, and I will pay you."

In this instance Smith is liable because he guaranteed personally to pay for the merchandise that White purchased, whereas in the former contract Smith said that he would pay for the merchandise "if White refused to pay."

WAREHOUSING

All "legal-wise" warehousemen should keep informed of late and modern higher court decisions involving other warehousemen. Hence they know how to avoid law suits and, also, know how to conduct their business in view of winning unavoidable suits. Readers might keep the following cases for future use and reference to their lawyers who may find them advantageous.

Is warehouseman liable for lost goods he failed to insure as per agreement?

A reader asks: "If a warehouseman promises to obtain insurance for the owner of stored goods and through error this insurance was not obtained, is he liable to the owner of the goods destroyed by fire?"

According to a late higher court decision, the warehouseman is liable.

For example, in B—— S—— Co. v. F——, 66 S. E. (2d) 108, it was shown that a bonded warehouseman received instructions from the owner of stored goods to insure the goods. He failed to obtain insurance and the goods were destroyed by fire.

In subsequent litigation, higher court held the warehouseman liable for full value of the goods, saying that when a warehouseman agrees to "insure" stored goods, he means that he will insure against fire and other likely causes of losses.

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Within the Law (Continued from Preceding Page)

TRANSPORTATION

What is the law on liability for storage charges on goods warehoused while mortgaged?

A reader writes: "If a warehouseman takes mortgaged goods for storage, who is liable for payment of the storage charges? I have a suit now and wish you would assist my lawyer win the case. What is the law?"

During recent months higher courts rendered several decisions involving legal rights of warehousemen to collect storage charges on mortgaged goods. For the benefit of your lawyer, who through Shepard's Citations can "run down" all higher court decisions on this subject, I shall refer you to a leading case that I consider as being to the point. This case is W——, 224 N. Y. S. 71.

In this case the M—— Storage Warehouse had in store two expensive appliances, both of which were mortgaged. The mortgages were dated Nov. 1, and Nov. 10, which dates were prior to the date they were placed in storage. The first mortgage was properly recorded in New York on Nov. 22. The other mortgage, was not filed or recorded.

The holder of the mortgages foreclosed and the warehouseman entered his claim for storage charges. He contended his warehouseman's lien was superior to both the mortgages.

Higher court held that the warehouseman could collect all storage charges on the appliance whose mortgage was not recorded, and he could collect storage charges, which accumulated after the suit was filed, on the stored appliance whose mortgage was recorded. The court said:

"The plaintiff was entitled to possession of the goods and the right to remove them, and he exercised this right by giving notice to the defendant, and therefore the plaintiff became liable for the storage charges thereafter accruing. It is not necessary for this liability to attach that the plaintiff should have taken actual possession of the property stored. Constructive possession or any act done indicating a purpose to take control or management of the property, makes the party liable for subsequent storage of the property."

Therefore, according to this higher court decision, anyone who assumes control over stored goods is liable for payment of the storage charges, irrespective whether he is a mortgagee, relative or friend of the owner, or holder of a conditional contract.

Does trucker assume risk of fire loss when he parks his vehicle elsewhere by agreement?

According to a late higher court decision, a trucking company which leaves its vehicles and merchandise on a warehouse company's property assumes the risk of fire loss.

For illustration, in M—— Trucking Co. v. G—— Tire and Supply Co., 87 Atl. (2d) 441, the testimony showed facts as follows: A trucking company's driver drove a loaded trailer into the B—— & B—— Warehouse, unhooked the trailer and drove away. This was in accordance with an agreement made previously between the driver and warehouseman. Soon afterward the warehouse caught fire and destroyed the trailer and its valuable contents.

In subsequent litigation the higher court refused to hold the warehouseman liable because no proof was given that the fire started through negligence of the warehouseman or his employes.

How much care must a trucking company exercise to avoid suit brought by on-premises injury?

A reader asks: "How much care does a trucking company have to use

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to avoid damage liability for injuries to patrons on its premises?"

According to a late decision, the same standard of care applies to an ordinary merchant display goods indoors. In both cases there is a duty to maintain "reasonably" safe premises for customers.

For illustration, in S—— v. K—— Co., 45 N. W. (2d) 395, the testimony showed facts as follows: A lot owned by the K—— Co. was covered with loose snow, and with ice underneath. There were lumps of ice on the lot and the surface of the lot was made bumpy and rough by hummocks, ruts, and ridges caused by motor vehicles.

One night one S—— came into the lot. As he was walking on the lot he slipped in a rut and fell, breaking his leg. S——sued for damages.

Counsel for K—— Co. contended that it is unreasonable to expect a company to keep its lot on which vehicles travel free from snow and ice and its surface free from ruts.

Nevertheless, the higher court held K—— Co. liable to S—— for heavy damages and said:

"Merely because a businessman undertakes to do business under adverse conditions is slight reason to acquit him of responsibility for shortcoming arising out of such conditions. Defendant cannot be allowed to reap the benefits arising from the presence of customers at his place of business and be remiss in performing his duty to exercise due care for their safety whenver performance of that duty becomes difficult."

Can injured employe on contract basis sue for damages rather than accept state compensation?

A reader asks "Can an injured employe employed on a contract basis sue his employer and recover damages instead of accepting compensation specified by the State Workmen's Compensation Act?"

The answer is yes, because an employe who works on a contract basis, instead of on a salary, is an independent contractor who is not entitled to compensation under the Act.

An important point of law is: If the injured person is a legal employe he may receive compensation under the Act whether or not he proves that the injury resulted from his employer's negligence. However, where the employe is an independent contractor, the jury will decide whether the employer's negligence caused the injury. If the injury was caused by the employer's negligence, the employe will be awarded damages.

For example, in M—— v. L—— Co., 80 Atl. (2d) 634, testimony showed facts as follows: An employe was employed to drive his own motor truck for the L—— Co. on a contract basis. One night the front wheel of the truck hit a deep hole on his employer's premises, snapped the steer-

(*Please Turn Page*)

Within the Law

(Continued from Preceding Page)

ing wheel out of his hands and broke his arm. The employe sued L—— Co. for damages alleging that negligence of its officials in allowing the invisible hole on its property caused the injury. The jury held the L—— Co. liable to the employe for $5,000 on the grounds that the company's officials were negligent in allowing its premises to remain in a dangerous condition. The higher court approved the verdict, saying:

"Whether the injury received by plaintiff was the natural result of defendant's negligence was a question for the jury."

This court also explained that if the employe had been working on a salary basis he could not have recovered damages for his injury, but would have been compelled to accept the compensation specified by the State Act.

Is a carrier liable for fire loss if he issues bill of lading before he actually receives goods?

Another reader asks: "If a common carrier issues a bill of lading to a shipper before the goods are in actual possession of the carrier, is the carrier at any time liable for loss or destruction of the goods?"

The answer is: if a carrier for its own convenience, and the convenience of shippers, is in the habit of issuing bills of lading for goods not in actual possession of the carrier and the merchandise is destroyed by fire, the carrier is liable for the value of the goods so destroyed, if the testimony fails to show that the loss resulted from negligence of the shipper or his agent.

For instance, in T—— & N. O. R. Co. v. J. K—— & Co., Texas, 156 S. W. (2d) 292, it was shown that merchandise was destroyed by fire while on a platform before being accepted for transportation by a common carrier. The carrier contends there was no liability on its part because the goods had not been delivered to it so as to render it liable as a common carrier. It contended that the merchandise was still in possession of the shipper at the time it was destroyed by fire on the platform.

Since the carrier had issued its bills of lading to an agent of the shipper, while the goods were on the platform, the higher court held the carrier liable for loss of the goods, and said:

"We think that, under the custom, the issuance of the bill of lading with full knowledge of the facts was tantamount to a delivery to and acceptance by the carrier and it thereby became liable as an insurer, although the shipment was thereafter destroyed before coming into its actual possession." •

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Letters to the Editor

(Continued from Page 8)

To The Editor:

I read with a great deal of interest the article on professionalization. Mr. Griswold is certainly entitled to his own views as to how to best professionalize, but it is my own personal opinion that he places too much emphasis on college training and that the ICC has no place whatsoever in the picture. Nor is their any need for either federal or state licensing at the present time.

I am surprised that in his article Mr. Griswold makes no important mention of the program of the ASTT or the American Foundation.

Certainly, in view of the fact that traffic management is not in the same public service category as are the practice of medicine, law, and dentistry; it seems that the program of the Society is adequate to distinguish and honor one who has passed a difficult set of varied examinations, and that no further controls are desired.

Arthur C. Roy
General Traffic Manager
Penn. Glass Sand Corp.
Pittsburgh, Pa.

To The Editor:

Certain members of our Chapter had the pleasure of reading your August publication, especially Mr. Griswold's article. I would appreciate it if you could send me 100 copies of this article, in reprinted form, so that they may be given to each member.

This problem is an extremely important one for our Chapter, and it will take a major portion of the Delta Nu Alpha Annual Meeting in Wilmington, Del., next month.

We want every member of our Chapter to understand this problem thoroughly before we dispatch our regular delegates and other members to the Wilmington meeting.

Alvin B. Bucholz
Publicity Chairman
Delta Nu Alpha
New York University

It seems that Mr. Griswold's plan for professionalization is not very popular. While only five of the letters received were published, we received others written in the same vein. Also, we received several telephone calls and had some personal talks with traffic managers about the article. Nobody expressed 100 per cent agreement with Mr. Griswold. In fact, there were several requests for rebuttals.

The nearest thing to an expression of agreement came in the letter from Delta Nu Alpha, NYU Chapter, printed above.

While DA always has, and always will, open its columns for free expression of opinions, we see no point in carrying on one-sided arguments. Now that both sides have had the opportunity of expressing their views, we will let it up to the individual traffic managers to choose the course they prefer. DA will continue being of service to both sides in their daily problems—handling, transporting and warehousing their products.—Ed.